1-1-2004

The effects of culturally matched materials on the reading comprehension of African-American students.

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THE EFFECTS OF CULTURALLY MATCHED MATERIALS ON THE READING COMPREHENSION OF AFRICAN-AMERICAN STUDENTS

A Dissertation Presented

by

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Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2004

Student Development and Pupil Personnel Services Department of the School of Education

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DEDICATION

To my mother Lorraine Williams and sister Valore Williams.

ACKNOWLEDGEMENTS

First and foremost I would like to thank God for getting me to this point. This work would not have been possible without His blessings. I would also like to thank my advisor and mentor, Gary Stoner, for his many years of indispensable insight, patient guidance, and unwavering support. I would also like to extend my gratitude to the members of my committee for their helpful comments and suggestions on all stages of this project. Thanks are also due to my work family who have supported my professional growth over the years. Thank you Gregory Hungerford, Kregg Strehorn, Teoom Williams, and Maureen Ryan for helping with the development of the reading passages; Patricia Silver, Margarita Hydal, Diane Campbell, Jennifer Dier, Jean Dupont, Rick Solomon and family, and Aunt Yvonne and Dad for your support throughout this process.

I would also like to thank the principals and administrators who dedicated their time, school, and love to this project: Ms. Veta Daley, Ms. Mona Collins, Ms. Mason, and Ms. Pamela Rosenberg. Thank you Bertha, Susan, Tracy, Beverly, Bridget, Ginger, Eric, and Michelle for your support during the data collection phase of this study.

A special thanks to my partner in life, Oliver Chee-a-tow for his endless patience, love, and support. Thank you for giving up your weekends and your holidays. Thank you for reading countless pages of draft and offering your insight and edits which made this project not only a dream but also a reality.

A special thank you to all those whose support and friendship helped me stay focused on this project and provided me with the encouragement to continue when the going got tough.

ABSTRACT

THE EFFECTS OF CULTURALLY MATCHED MATERIALS ON THE READING COMPREHENSION OF AFRICAN-AMERICAN STUDENTS

MAY 2004

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The purpose of this study was to explore the relationship between culturally matched and unmatched materials on the reading comprehension of African-American students in grades 3 through 5. The study also sought to explore potential relationships amongst variables such as background knowledge, academic self-concept, and comprehension. The results obtained suggest that after adjusting for background knowledge, oral reading fluency and reading comprehension scores did not vary as a function of reading culturally matched and unmatched materials. In other words, reading passage content did not facilitate fluency and reading comprehension for African-American students enrolled in grades 3 through 5. In addition, academic self-concept scores did not vary as a function of reading culturally matched and unmatched materials. Therefore, the results obtained fail to support the cultural model's hypothesis of reading achievement in the African-American community.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

STATEMENT OF THE PROBLEM: READING ACHIEVEMENT IN THE AFRICAN-AMERICAN COMMUNITY

Improving Student Achievement

As a nation, the United States continues to strive for excellence in producing an educated citizenry. Educating all American children is a central theme of current educational policies and mandates; it is perceived as an attainable goal not simply as optimistic jargon. For example, in 1994, then President Clinton signed into legislation Goals 2000, the Educate America Act. This legislation was designed to improve learning and teaching by providing a national framework for education reform. This legislation was to also support new initiatives at the Federal, State, local, and school levels to provide equal educational opportunity for all students to meet high academic and occupational skill standards. The goals encompassed in Goals 2000 were student readiness to learn at school entry; 90% high school completion rates; student achievement and citizenship; professional development for teachers; math and science achievement; adult literacy and lifelong learning; parental participation in schools; and safe schools (Goals 2000). One of the objectives of this legislation is that all students will leave grades four, eight, and twelve having demonstrated competency over challenging subject matter including English, mathematics, and science (Goals 2000).

More recently, January 7, 2002, current president George W. Bush reauthorized the Elementary and Secondary Education Act. This legislation came to be known as the "No Child Left Behind" Act. In a continued effort to provide the best education for our nation's youth and children, the "No Child Left Behind (NCLB)" Act mandates increased accountability for States, school districts, and schools; greater choice for parents and

students, particularly those attending low-performing schools; more flexibility for states in using federal funds; and a stronger emphasis on reading (No Child Left Behind Act of 2001). As with Goals 2000, the "No Child Left Behind" Act proposes that every child should be able to read by the end of the third grade. To accomplish achievement in reading, the Reading First initiative (NCLB) would significantly increase Federal investment in scientifically based reading instructional and intervention programs in the early grades (The No Child Left Behind Act of 2001). It is noteworthy that both of our most recent presidents placed reading development as the cornerstone of their educational reform initiatives. Thus, reading has been highlighted as an important component of educational development and social mobility.

Educating Diverse Learners

The mission to educate all children has evolved as a response to the declining academic performances of American youth compared to their counterparts in the world. Although, USA fourth graders performed above the international average of 35 countries in reading literacy in 2001, three countries had a higher average combined reading literacy scale score than the USA (The Condition of Education, 2003). However, to educate all children, teachers and policy makers encounter variables that were not of concern many years ago. For example, the school environment in the United States is becoming increasingly diverse. Diverse learners such as students from impoverished backgrounds, students with disabilities, minorities, and students with limited English proficiency have traditionally been denied adequate educational opportunities and have achieved less (Baker, Kameenui, Simmons, & Stahl, 1994; Roscigno, 2000). Kameenui (1998) indicates that the majority of diverse learners live in greater poverty than at any

other time in modern history. These students enter school with significant gaps in their readiness skills (i.e., facility with language). Diverse learners continue to do poorly as they progress through the educational system and require advanced levels of education to compete in a global market. "No Child Left Behind" seeks to provide specific policies and mandates, as well as some funds to address educational concerns regarding these diverse learners.

As a group, the majority of students of African-American descent have lived in poor communities with limited educational opportunities (Kidder, 1989; Kozol, 1995, 1991). African-American students have also entered schools with different communication styles which, it is believed, influence their achievement levels (Delpit, 1995) and possess different levels of preparedness (Roscigno, 2000). Historically, the population of African-American students has lagged behind their European-American counterparts in terms of academic achievement (Allen & Boykin, 1992). However, in the last twenty years African-American students have made tremendous gains in education. The graduation gap in high school between European-Americans and African-Americans has markedly narrowed. Although, African-Americans have narrowed the gap, their high school completion rate was still below whites in 2001, that is, 87% of African-American students graduated to every 93% of European-Americans (NCES FAST FACTS).

Although African-American students were more likely to complete high school in the 1990s than in the past decade, the majority of these graduates were less likely than their European-American counterparts to enroll in a four-year college and complete a baccalaureate degree, and they were less likely than European-American students to enroll in colleges immediately after completing high school (The Condition of Education,

1998, 2000). The National Center for Education Statistics reports that African-American high school graduates are less likely to be prepared for the rigors of college demands than their European-American counterparts. However, when matched for levels of qualification, African-Americans enroll in a 4-year college at similar rates as European-Americans (The Condition of Education, 1998, 2000). Since 1983 immediate college enrollment rates have increased for African-Americans than whites, narrowing the gap (The Condition of Education, 2003). The National Adult Literacy Survey (NALS), which was designed to profile the literacy rates of adults in the United States, found that African-American adults in 1992 were more likely than European-American adults to perform at the lower literacy levels, suggesting that it may be problematic for these individuals to obtain a job or aid their children with learning how to read. Seventy-nine percent of African-Americans, as compared to 43% of European-Americans, were performing at the lower levels of literacy. Thus, African-American children are coming from homes where literacy preparedness is limited (The Condition of Education, 1998).

Although, the participation of African-Americans and European-Americans in preschool education may appear to be similar, disparity is also found in the acquisition of basic skills. As early as age four, there are differences in literacy, numeracy skills, and participation in literacy activities in the home. According to the National Center for Education Statistics (2000), in 1996 80% of children ages three to five were read to or told a story in the past week by a parent or family member and 38% visited the library. While many African-American children participated in some of these activities, European-American children were more likely than African-American children to have participated in all of these activities (The Condition of Education, 2000). Current trends

suggest that the percentage of poor and non-poor children who participated in literacy activities with a family member increased between 1993 and 2001. Despite these increases, non-poor children were more likely than poor children to engage frequently in certain literacy activities in 2001, such as being read to by a family member or being told a story (The Condition of Education, 2003).

Based on the data presented in regards to preschool experiences, graduation rates, and college entry for African-American students, one could argue that the playing field for all children is not leveled with respect to educational attainment. In order to educate all children an awareness of the changing demographics of the American school system is required. It is also important to realize that diverse learners will come to school with varying levels of preparedness and educators will need to be willing to modify instruction and curriculum to meet the needs of these students. Therefore, a child's early experiences in the home are an important indicator of his or her performance in school (Hart & Risley,1995; Kameenui, 1998).

How are we to understand this phenomenon? The ecological perspective of psychology suggests that the child is influenced by the culture of the home, the community, and society respectively (Hatchett & Jackson, 1993; Peters, 1981). Thus, one would expect all children, not only diverse learners, to come to school with different levels of readiness skills as determined by the culture of the home. However, diverse learners may enter school less prepared than their peers because of circumstances beyond their control. The following discussion will focus on one group of diverse learners: African-American students. The discussion will explore the noticeable gap in reading achievement in the African-American community. Statistics will be provided

documenting African-American reading achievement to date. An explanation of the achievement gap with an emphasis of a model that incorporates the importance of culture will be provided. Finally empirical research will be presented examining the achievement gap, with a focus on curriculum and instructional variables and an outline of the study proposed.

Statement of the Problem

In efforts to educate all children, similarly states are instituting high standards and accountability systems for both teachers and students. Expectations for diverse learners have been elevated. A number of professional organizations including The National Council of Teachers of Mathematics, The National Center for History in the Schools, The National Science Education Standards, The Standards Projects of English Languages Arts, and Goals 2000 suggest that students can benefit from the opportunity to learn from a core curriculum. According to Kameenui (1998) the Standards Projects for English language "promote equality of educational opportunities and higher academic achievement for all students. Yet, having high standards without provisions for students to attain those standards makes those standards meaningless. As indicated earlier, Goals 2000 and No Child Left Behind suggest that by grade 3, all children should be reading at grade level.

Achievement Gains in Reading

One of the primary ways in which this country gauges its progress in education is by assessing student achievement gains in reading. Reading is considered to be the cornerstone of the educational system. An increasing number of students is currently completing high school despite being unable to read. They graduate with only

rudimentary skills which may hinder their ability to participate fully as citizens. In 1993, 90 million of America's 191 million adults could perform only simple literacy tasks. Concurrently, the literacy rates of young adults have decreased in the past 10 years. In 1992, 41% of fourth graders, 31% of eight graders and 25% of twelfth graders read below the most basic level of proficiency (Baker et al.1994).

The National Assessment of Educational Progress report of 2003 suggests that the reading performance of our nation's fourth graders has remained relatively stable across assessment years. The percentages of students performing at or above the Proficient level were higher in 2003 than in 1992 at both grades 4 and 8. However, no significant change was detected in the percentage of fourth graders at or above Basic from 2002 to 2003, and the percentage of fourth graders at or above Basic in 2003 was not found to differ significantly from than in 1992. There were no significant changes detected since 2002 in the average scores for any of the racial/ethnic groups at either grade 4 or grade 8. Although, the average scores for White, Black, and Asian/Pacific Islanders fourth graders were higher in 2003 than in 1992. In 2003, White students and Asian/Pacific Islander students outperformed Black, Hispanic, and American Indian students on average at both grades 4 and 8 (The Nations Report: Reading Highlights, 2003).

The preceding statistics suggests that over the past years, there have been few gains, if any, toward improving reading achievement in the country for African-American students. In 2003, the majority of the fourth grade students who were reported to be reading at or below the basic level were 69% which suggests that they are still learning to read as opposed to progressing to the level whereby they are reading to learn. These results also suggest that African-American students still lag behind their peers.

The development of adequate reading skills is a serious problem that is present early for diverse learners (Baker et al.,1994). Thus, the development of adequate reading skills is a problem for African-American students. In a study conducted by Hart and Risley (1995) they concluded that children from higher social economic status (SES) acquire vocabulary at a faster rate than children from lower SES backgrounds. Results also suggested that African-American and European-American students acquired and learned language at different rates. Research suggests that vocabulary development is related to comprehension. Hence, if students are acquiring vocabulary at a slower pace, this will influence how they comprehend a text and thus impede reading.

While the gap in achievement between African-American and European-American students has narrowed in the areas of reading, mathematics, and science, the academic performance of African-American students has persistently lagged behind that of European-American students when measured between the ages of 9 and 17 years. Overall, the reading proficiency of an African-American 17-year old in 1971 was at a lower level than a 13-year-old European-American student. However, by 1996, a 17-year-old African-American student's reading proficiency was equal to a 13-year-old European-American student. Although strides in reading proficiency have been remarkable, African-American students continue to under-perform their peers in learning basic academic skills. Therefore, while standards of excellence are being raised, African-American students fail to measure up to standards already in place. This lack of performance places this group at a disadvantage for educational and economic mobility. What explanations have been provided to explain this performance gap? The next section explores this question and provides an outline of the study proposed.

Theoretical Frameworks

Many variables have been discussed in efforts to explain the performance/achievement gap between African-Americans and European-Americans. In the past, the lower achievement rates of African-American students have been attributed to factors such as SES, the educational level of the parents, income, family composition, peer relationship (Fordham, 1996), and immigration status (Ogbu, 1993). Two divergent theories seek to explain these differences in performance: the genetic explanation and the cultural explanation of achievement.

One of the first explanations for the differences in the school achievement of African-American students originated from a perspective emphasizing genetics (Eysenck, 1972). This theory suggests that African-American failure lies in the lack of intelligence. Intelligence is considered to be largely inherited; therefore the poor performance of African-Americans in school is due to relatively low levels of cognitive ability resulting from faulty or inferior genes. The genetic position has been criticized for its failure to adequately define intelligence, mostly because of the manner in which intelligence has been operationalized. The genetic explanation of school failure has sparked heated debates on whether intelligence is largely inherited (Eysenck, 1972; Hernstein & Murray, 1996; Jenson, 1969) or whether environmental agents play an important role (Gardner, 1987; Kamin, 1974; Rex; 1972; Watson, 1972) in its makeup.

The second explanation for the difference in school achievement for African-American students originated from the cultural camp. The cultural explanation arose as a response to the genetic theory's assertion that intelligence was inherited. The cultural theory explanation of school achievement is a focus here because the current study is an

extension and critique of this model. The cultural explanations of school achievement postulates that the environment and culture contribute to a child's educational environment. This position contains two differing perspectives: one of cultural deficits and one of cultural differences. The cultural deficit argument focuses on the environmental handicap facing African-American families and their children. This position asserts that economic and social discrimination lead to the self-perpetuating conditions in the subsequent development of dysfunctional personality traits (e.g., low self-esteem, self-concept, lack of locus of control), which culminate in lower achievement levels among African-American students. The arguments from this point of view tend to stem from rhetoric and jargon as opposed to empirical evidence. This is evident in the well-publicized book by McWhorter (2000) called Losing the Race: Self-Sabotage in African-American America. In his argument, McWhorter examines the lack of achievement at the college level for African-American students and essentially blames African-American students for their plight. He suggests the African-American psyche has been damaged and adversely affects academic performance at the college level. Hence, his qualitative explanation has a "blame the victim" tone.

The cultural deficit argument further contends that African-Americans do not have the requisite personality traits which are critical to succeeding in the American educational system. For example, such traits as positive self-concept, locus of control and achievement motivation are some of the most important ones identified (Murray & Fairchild, 1989). This position proposes that the African-American family lacks the necessary requirements to foster academic achievement in their children, which creates a cycle of poverty (i.e., culture of dependence). This line of reasoning would suggest that

African-American families do not foster literacy activities at home. The programs spawned out of this model in the 1960s were Upward Bound and Head Start. Programs of the early 1980s include Prep for Prep and Another Better Chance (ABC), which is based in New York City (Murray & Fairchild, 1989). These programs are designed to provide high achieving minority students with enriching academic experience. The majority of these students are normally placed in private schools or successful public schools on the East Coast. The cultural deficit model has been critiqued for being myopic and for concentrating on the individual rather than the system. Frisby (1992) argues against focusing on the African-American family as the primary source of student failure. By focusing on the family, the cultural deficit position perhaps does more to solidify the conclusion of the genetic perspectives than to challenge it.

As an alternate to the cultural deficit model, the cultural difference position suggests that education should be based on the variations among cultures. The theory stresses that African-Americans have a unique socio-cultural experience and psychosocial disposition within the educational setting. However, the theory asserts that these differences are not deficits. Rather, it argues that African-American underachievement results from a mismatch between the culture of the home and the culture of the school (Allen & Boykin, 1992; Boykin, 1984).

Thus, the socio-cultural theory is an extension of the cultural difference argument. This model argues for a focus on context as a method of explaining student achievement and points out the environmental variables that may hinder progress. For example, Boykin (1984) alludes to teachers, administrators, and the school curriculum as being potential barriers to closing the achievement gap. He argues for a holistic approach

versus a sub-skill approach to learning, whereas others argue for a skills approach with the infusion of the child's cultural voice (Delpit, 1995). For example Boykin espouses:

> "that failing to acknowledge the existence of the cultural frame of reference of Afro-American children, while simultaneously attempting to inculcate imperialistically a relatively unfamiliar and often non-congruent cultural purview will be coded by the child as stifling, dehumanizing, degrading, and antagonistic experience (pg. 469)."

This line of thinking is supported in Kohl's (1991) book "I won't learn from you." The argument is that African-American students will learn more efficiently and effectively if their learning is tied to their specific cultural frame of reference.

The connections between cultural frame of reference and narrowing the achievement gap have been difficult to ascertain because most of the related research tends to consists of qualitative studies (Champion, Katz, Muldrow & Dail, 1999; Meacham, 2001; Rickford, 2001; Willis, 2002) personal memoirs (Delpit,1995; Kaminiski, 2000), or theoretical arguments (Meacham, 2001; Roscigno, 2000). This cultural argument is not new. African-American students, although having made some gains in the educational system still lag the achievement of their peers. The cultural perspective can be translated into a working model that provides for the manipulation of variables within the child's environment to enact change and learning. As a result it may provide direction in search of an explanation for this performance lag. For example, children may do better if presented with materials from their own cultural background. This statement is open to empirical examination and will be explored in the research presented here.

Purpose of Study

The current study is an extension of the studies conducted by Casteel (1995) and Bell and Clark (1998) on the effects of culture and its relationship with reading comprehension. These studies will be fully explored in the literature review portion of this exercise (see Chapter 2). Instead of focusing on the early stages of reading development, this study centers on the comprehension of a passage and the variables that may aid such a process. Thus, the purpose of this project is to explore the relationship between culturally relevant text and student comprehension. The current study differs from previous research in two paramount aspects: the text being used and the population being studied.

Cultural text in the African-American culture can be divided into three themes: images, experiences and historical figures. Cultural books that focus on images may only differ from mainstream books in that the characters are African-American. Cultural books that focus on experiences highlight some occurrences that are shared by a group of people because of their position in society. Historical books tend to focus on how individuals cope with cultural issues over time. Books in this genre tend to address luminaries such as Fredrick Douglass, Booker T. Washington, W.E.B Dubois, or Malcom X. Casteel's study explored the effects of images, whereas Bell and Clark explored the effects of images and experiences.

The current study will explore the relationship between a cultural text and student comprehension. The text chosen focused on the experiences of African-American children living in the inner-city. This is based on the premise that inner-city neighborhoods are most likely to be populated by diverse learners, and hence materials

were taken from these children's experiences. Another aspect that sets this study apart from the others is the population being studied. This study seeks to understand the relationship between ethnicity and cultural text by studying African-American students in grades 3 through 5 in an urban elementary school. An interaction between cultural text and ethnicity would be supportive of the cultural frame of reference position. This study also seeks to understand the relationship amongst variables such as background knowledge (i.e., prior achievement levels), academic self-concept, and comprehension. The current study seeks to understand the relationship between self-concept and comprehension. The following questions will be explored:

Question 1. How does reading passage content (i.e., culturally matched and culturally unmatched) influence reading comprehension as measured by oral reading fluency when background knowledge is used as a covariate for African-American students enrolled in grades 3 through 5? It is hypothesized that when materials and subjects are matched on cultural materials, oral reading fluency will be significantly higher as compared to when materials and subjects are not matched.

Question 2. How does reading passage content (i.e., culturally matched and culturally unmatched) influence reading comprehension as measured by an experimental comprehension task (Royer, 2001) in African-American students enrolled in grades 3 through 5? It is hypothesized that when materials and subjects are matched on cultural materials, the experimental comprehension task scores will be significantly higher as compared to when materials and subjects are not matched.

Question 3. Does academic self-concept of African-American students vary as a function of reading culturally matched passages or culturally unmatched passages?

CHAPTER 2

LITERATURE REVIEW: THE FACILITATIVE NATURE OF CULTURALLY MATCHED READING MATERIALS

Introduction

Reading is the foundation of educational development for several reasons. A future without knowing how to read is one with limited possibilities. Children with low reading skills in early grades have a greater likelihood of school dropout, teenage pregnancy, drug abuse, and unemployment (McGill-Frazen & Allington, 1991). Of the 17.5% of young children in the United States who experience difficulty learning to read during their first three years of school, 74% of them will continue to struggle as ninth graders unless they receive effective instruction (Fletcher et al., 1994). In another study Juel (1988) followed the literacy development of children from the first to the fourth grade. The probability that a student who was a poor reader in the first grade would be a poor reader in the fourth grade was 0.88. One would predict that if students are not exposed to opportunities, which will provide the skills to break this cycle, they may graduate from school reading only at or below the basic level as compared to their peers.

The skill of reading includes a combination of decoding (breaking and understanding the alphabetic code) and of comprehension (the process of integrating the meaning of words into sentences and text) (Juel, 1998). In order to comprehend, students need to be fluent readers. Fluency is related to the speed and automaticity with which a student is able to identify a word. Without fluency, reading would not be achieved. With fluency, more of the reader's time may be allocated to comprehending the text rather than identifying words.

A thorough understanding of the process of reading involves many variables. For the present work, however, two variables will be examined: the student and the curriculum. Student variables can be divided into the skills that children and youth bring to the instructional task (i.e., understanding the alphabetic principle and vocabulary skills) and their motivation and interest. The most common curriculum variables are approach (whole language versus phonics), content, sequence, drill and practice (Carnine, et al.1997).

The literature regarding reading development focuses largely on acquiring basic skills. Thus, the majority of research focuses on the population from kindergarten to the third grade because students in these grades are being taught to read (Adams, 1990; Juel, 1988; Juel & Roper/Schneider, 1995). The research focusing on reading to learn (i.e., comprehending a text) is studied less often. The comprehension literature focuses on types of reading strategies (i.e., advanced organizers) to a larger extent than the actual content of materials being read (Carnine, Silbert, & Kameenui, 1997; Kucan & Beck, 1997).

It has been suggested that African-American students will learn more efficiently if instructed using materials from their cultural frame of reference (Allen & Boykin, 1992; Delpit, 1995); that is, they would learn more if given materials from their own cultural background. In her acclaimed work "Other People's Children: Cultural Conflict in the Classroom", Delpit (1995) argues that African-American students have been characterized as those who are not motivated to learn to read. She suggests that children of color reject literacy because they may feel that the discourse rejects them. The question of concern becomes: how can schools motivate students who are African-

American to read instead of practicing what Kohl (1991) terms "not-learning?" Not-learning techniques are strategies that minority students normally enact to navigate the school system. The strategies tend to be counterproductive (e.g., Spanish-speaking children refusing to learn English) and the student fails to learn what is required. However, research has provided us with ample evidence that African-American students do achieve on levels comparable to their European-American peers if the necessary opportunities are provided (Allen & Boykin, 1992; Bohr, Pascarella, Nora, & Terenzini, 1995).

Reviewing the Research Literature

A valid question at this point is: do studies exist that support this explanation of school failure? To explore whether or not studies exist that support this explanation of school failure, the research literature was reviewed. To organize current research on the topic, the research literature was reviewed for the last 30 years. Two main data bases were used to yield research articles: ERIC and PsycInfo. The following data bases were also used to find supplemental information: E*subscribe, Expanded Academic ASAP, and Academic Search Premier. Several keywords were used to search for articles. The keywords were African-Americans and reading, African-Americans and comprehension, Blacks and reading, culture and comprehension, and reading and culture. Articles were selected if they included the above criteria. Once selected and read, 3 themes tended to emerge across articles.

Hence, studies that focused on the connection between culture and achievement were broken down into three themes. One theme focuses on the use of cultural schemata and its connection to the comprehension process. This line of research tends to stem

mainly from the cognitive branch of psychology (Reynolds, Taylor, Steffensen, Shirey, & Anderson, 1982; Steffensen et al. 1979). Another theme focuses on the use of cultural symbols and values as an instructional tool in the classroom to foster achievement (Albury, 1992; Allen & Boykin, 1992; Boykin & Allen, 1988; Delpit, 1995; Lee, 1995). A final theme centers on the use of culture in the curriculum (Bell & Clark; Casteel, 1995; Grice and Vaughn, 1992) and its connection to the achievement of African-American students as compared to European-American students. All themes will be explored separately in the following sections.

Culture and Comprehension: A Cognitive Approach

The influence of cultural schemata and learning is greatly influenced by Bartlett's (1932) seminal work on cognition and culture. He proposed that a foreigner who reads a story that presupposes the perspective of a culture will comprehend it differently, and probably less efficiently than the narrator of that culture would. Thus, schemata theory provides an interpretive framework which allows the reader to utilize when reading. When reading, readers tend to use background knowledge, situation context, and cues provided from the author to construct interpretation of the text (Pritchard, 1990). The following studies highlighted in this section emphasize the connection between cultural schemata and comprehension. Cultural schemata and comprehension have been explored using different cultures (Abu-Rabi, 1996; Pritchard, 1990; Sasaki, 2000) and the comprehension strategies of second language learners (Abu-Rabi, 1996; Chihara, Sakurai, & Oller, 1989).

In one of the first studies completed in this field, Steffensen, Joag-Dev, and Anderson (1979) reported that cultural schemata aid the comprehension process. They

argue that when a person reads a story, the schemata consisting of the reader's cultural heritage and background knowledge provides the framework for understanding the material. The schemata enable the reader to ponder events or characters that are either salient or fit within their own cultural frame of reference. Steffensen et al. (1979) decided to study the effects of cultural schemas in aiding the comprehension process. They sought to explore whether or not certain groups would attend more carefully to materials from their cultural frame of reference. They propose that their study employed a complete design in that it involved two cultural groups (i.e., Indians from India and Americans).

They argue that previous research have only used one ethnic group. However, subjects in their study were matched based on the following characteristics: sex, age, highest level of education, area of specialization, and marital status. It is unclear what the ethnic backgrounds were of the American students. Regardless of this limitation, the researchers decided to measure reading time, the amount of recall of text elements, the amount of important and unimportant text elements, and the modifications of the text between the two groups.

Two letters were written describing typical Indian and American weddings. Subjects were provided booklets that contained instructions, sheets on which the time was recorded, the passages, filler tasks, blank pages for free recall, questions on the two experimental passages, and a questionnaire. Participants were told to read the materials for comprehension. Reading time was the length of time it took each student to read the passage for comprehension.

The researchers found that, as expected, the Americans read the American passage faster than they read the Indian passage whereas the Indians read the Indian passage faster than the American passage. There also was a main effect for nationality, with Americans reading faster. They also found that the Americans recalled more idea units from the American passage than from the Indian passage while the reverse was true for the Indians. Therefore, they argue that individuals background knowledge and cultural schemata exert a profound influence on how well the discourse will be comprehended, learned, and remembered.

Building on Steffensen et al. (1979) earlier study, Reynolds et al. (1982) compared a minority and a majority group in the United States. They argue that readers acquire meaning from text by analyzing words and sentences against the backdrop of their own personal knowledge of their respective communities. They suggest that age, sex, race, religion, nationality, and occupation influence an individual's personal knowledge. The researchers hypothesized that culture influences knowledge, beliefs, and values; and that knowledge, beliefs, and values influence the comprehension processes. They suggested that despite a huge cultural overlap in our culture, minority groups may experience information differently than the majority culture.

Therefore, Reynolds et al. provided Black and White subjects with a letter about a school incident that could be interpreted as a fight or as an instance of "sounding." They define sounding as "a form of ritual insult predominately found in the black community." There were 105 eighth-grade students in the study. Fifty-four subjects were black and came from working class neighborhoods, whereas 51 subjects were white and were from white agricultural areas. Subjects were provided with two experimental booklets. The

first booklet contained the experimental text, a short letter about the incident in the cafeteria. The second booklet contained 29 probe statements. Each statement was accompanied by a four point rating scale. Subjects were asked to circle one of the four options to indicate if the probe statement was: (1) stated in the same words as the letter, (2) not stated in the letter but must be true, (3) not said in the letter but could be true, or (4) not stated in or implied by the letter.

The researchers found that although there were no main effects for probe sentences, a culture by probe type interaction was significant. Therefore, they argue that the data strongly support the view that cultural schemata influence reading comprehension. They also found that subjects' interpretation of the incident in the cafeteria was influenced by their culturally based knowledge and belief; that is, Black students recognized that the incident in the cafeteria was not a fight per se as so much as the white students in the sample thought. Therefore, they suggested that differences in schemata are shaped by communities influenced by race and culture.

Hence, the authors' belief that cultural schemata influences the way students process information. In other words, cultural schemata focuses our lenses on certain stimuli in the environment and thus information is stored and retrieved through cultural lenses. The other section explains cultural schemata and its connection to the comprehension strategies and difficulties of second language learners.

Cultural Schemata and Second Language Learners

Building on previous research Chihara et al. (1989) wanted to explore cultural schemata in terms of second language learner comprehension abilities. The authors suggest that when writer and reader speak the same language and have similar

experiences and expectations, presumably interpretations are apt to achieve an optimum level of agreement. When the two persons speak different languages, have distinct experiences and different expectations, it is easy to see that agreement on interpretation is apt to be less than optimal. In order to research this phenomenon, the authors wondered that if merely changing a few lexical items to more familiar Japanese terms would result in higher cloze scores on the adjusted passages. The authors hypothesized that by changing pronoun and nouns to more familiar words would heighten comprehension of a second language learner.

One hundred and fifty-nine Japanese students served as subjects. All students were females between the ages of 19 and 20 years and had studied English a minimum of 6 years. Subjects were tested in two groups with 79 and 80 individuals respectively. Subjects were given two passages that contained unchanged and modified information. The presentation of the passages was counterbalanced to control for order effects.

The authors observed that students found the unchanged passages more difficult than they did the modified passages. A two factor analysis of variance found a significant difference for condition and passages, indicating that students who read modified text, performed significantly better on the cloze measures. Hence, by changing the passages, Japanese students in the sample comprehension scores were higher on passages that reflected their cultural schemas.

To further explore how cultural schemata influences students' reported strategies and their reading comprehension, Pritchard (1990) was interested in exploring what types of comprehension strategies students explored while reading culturally familiar and unfamiliar materials. Specifically, he hoped to answer the following questions:

1. Are there differences in the strategies proficient readers use to comprehend culturally familiar and unfamiliar materials?
2. Are there differences in frequency with which proficient readers use particular strategies to comprehend culturally familiar and unfamiliar materials?
3. Are there differences between cultures in the strategies readers use to comprehend culturally familiar and unfamiliar materials?
4. Are there differences between cultures in the frequency with which readers use particular strategies to comprehend culturally familiar and unfamiliar materials?

Thus, he designed his study to identify reader strategies and to examine them in relation to two factors: cultural backgrounds of the reader and the content of the passages read. A split-plot design was used to explore subject's comprehension strategies. Participants in the study included 30 American and 30 Palauan eleventh grade students who were randomly selected from a sample of 174 proficient readers. Students were selected from a public school in a small Mid-western city and a small Pacific island nation.

In developing materials for his study, Pritchard (1990) followed the guidelines implemented by Reynolds et al. (1982). Therefore, two passages were written in the form of a letter from a woman to her sister describing the events surrounding a typical funeral in American and Palauan societies. Hence, both American and Palauan students read letters describing funeral events from both cultures. Unlike previous research that used cloze techniques to measure comprehension, Pritchard employed a story retell method.

Students were stopped at pre-determined times and were asked what they were thinking of at that particular moment. Students were also asked comprehension questions after reading the letter.

Pritchard was able to identify 22 taxonomies of processing strategies. These 22 taxonomies were later organized into five themes: developing awareness, accepting ambiguity, establishing intrasentential ties, establishing intersentential ties, and using background knowledge. When students used background knowledge, they tended to do the following: used background knowledge of the discourse format, referred to the previous passage, responded affectively to text content; visualized, related the stimulus sentence to personal experience, and speculated beyond the information presented in the text.

Pritchard found that proficient readers who participated in the study employed the same 22 strategies when reading both the culturally familiar and unfamiliar passages. Students also reported using background knowledge and establishing intersentential ties (i.e., reading ahead, relating the stimulus sentence to a previous portion of the text) more often when reading culturally familiar than unfamiliar passages. He also found that an overwhelming majority of the students reported that they made connections more quickly when reading culturally familiar passages than when reading unfamiliar passages. Subjects also recalled significantly more idea units from culturally familiar than from the culturally unfamiliar passage. A significant interaction between cultural background and passage familiarity was also uncovered in the number of elaborations. Hence, background knowledge aided the comprehension of culturally matched passages.

Like Chihara et al.(1989), Abu-Rabia (1996) explored cultural schemata in terms of second language learner comprehension abilities in Jews learning English and Arabs learning Hebrew. The study investigated the effects of schemata on understanding cultural story content in two different languages, Hebrew and English. The aim was to explain how attitudes and different cultural background of readers are related to reading comprehension in the case of Arab students learning Hebrew as a second language and Jews learning English as a second language learner in Israel. Hence, the main question of interest was: "will the social attitudes and culture of learners influence their reading comprehension?"

Eighty Jewish and seventy Arab 14-15 year old students from two intermediated schools in central Israel participated in the study. The Jewish students studied English an average of 4 hrs a week, whereas Arab students studied Hebrew 5 hours a week. Students were presented attitude questionnaires to examine their attitudinal/motivational orientation in learning Arabic and English. Three stories were taken from Jewish writing depicting Jewish cultural situations and folklore. Three stories were also chosen from Arab cultural situations and folklore. Three more stories were selected from Western literature. For Arab students, the cultural Arab stories were translated into Hebrew and the cultural Jewish stories were translated into Arabic. For the Jewish students, the cultural Jewish stories were translated into English, and the cultural Western stories were translated into Hebrew. Each passage was accompanied by 10 multiple-choice questions, 5 explicit and 5 implicit.

Only the reading results will be highlighted in this section. The author found that the Arab students' scores were significantly higher in tests at the level of explicit and

implicit information from Arab stories than from Jewish stories, regardless of language presentation, Arabic or Hebrew. An analysis of variance (ANOVA) showed a higher significant effect for content of text than for language of text. Similar results were also found for Israeli students. They revealed a higher significant performance on familiar cultural content than on unfamiliar content.

By manipulating assessment materials in hopes of understanding the relationship between cultural schemata and students' test-taking processes for cloze-test, Sasaki (2000) investigated whether or not students performed differently when culturally unfamiliar terms are changed to more familiar ones in a cloze test. He also wanted to explore whether or not students express, and thus utilize, different degrees of understanding of some culturally unfamiliar terms in a cloze text while solving the test items or recalling the cloze text, when these items are changed to more familiar ones in the test.

Sixty Japanese first-year university students, who ranged in age from 18 to 20 years, with an average of 6.6 years studying the English language participated in the study. Once selected, participants were randomly assigned to an unfamiliar and familiar group. Participants in the unfamiliar group were given a cloze task that was culturally unfamiliar. Participants in the familiar group read cloze materials that were modified by changing the pronouns to Japanese terms. For example, Sasaki changed the main character Hoe to Hiroshi.

T-test analysis was run to evaluate the difference between the means. T-test analysis showed that the familiar group means score on the cloze test was significantly higher than the unfamiliar group. That is, the cloze test was significantly easier for the

familiar group than for the unfamiliar group in spite of the fact that the two groups had similar levels of English reading ability. He also found that members in the familiar group showed evidence of comprehension for the key terms while solving the items or recalling than did the other group members. Hence, changing pronouns in the story to Japanese words tended to facilitate comprehension (Sasaki, 2000).

To further explore whether or not students cultural schemata influence comprehension Webster (2001) was also interested in knowing whether or not students were aware that they were utilizing their cultural schemas when reading culturally familiar text. He wanted to determine if students were aware of the influence of their own cultural backgrounds on their reading perceptions. Webster wanted to explore the following:

1. At what level will participants identify their own personal development of cultural awareness?
2. Will participants identify cultural elements in texts that include cultural perspectives different from the perspectives of their own culture(s)?
3. How will the participants' self-selected level of cultural awareness compare with the cultural awareness that they construct from their understanding of cultural elements in multicultural literary texts?

Participants in the study were enrolled in four intact English honors classes in a suburban high school. Subjects were administered Banks typology of ethnic identity. Banks typology classifies an individual's development of cultural consciousness into six somewhat successive stages. Subjects were also given three multicultural stories, each

with a corresponding writing prompt, guided interview, and writing prompt asking about participants' culture(s).

Findings revealed that students' self-rating of cultural awareness was often accurate, that their awareness of their own cultural backgrounds sometimes aided in entering a literary text and sometimes did not. Therefore, Webster found that students from the same background interacted differently with the text. For example, one African-American student in the study reported that a particular African-American themed story spoke to him, whereas another student reported that she found the story confusing and difficult to comprehend. This particular student also felt no connection to the story. Hence, his results were inconclusive in the sense that there were intra-individual differences in how students' cultural awareness aided the comprehension process.

In summary, the literature regarding cultural schemata and comprehension supports the notion that cultural schemata do aid the learner in the comprehension process. This theory has been supported with Japanese students (Chihara et al.1989; Sasaki, 2000), Arab and Jewish students (Abu-Rabia, 1996), American students (Pritchard, 1990), and African-American students (Reynolds et al., 1982). It is also clear that proficient readers utilize similar reading strategies when reading unfamiliar and familiar text. However, they also tend to utilize more background knowledge when reading culturally familiar text. One could argue that such huge effects in terms of cultural schemata and comprehension could not be found in the American culture due to the homogeneity of American pop-culture. However, Reynolds et al. have found that sub-populations in the United States interpret information differently, as a function of their cultural heritage and experiences in the United States.

Discontinuity between Home and School

Despite Reynolds et al. work, other researchers (Bradford & Harris, 2001; Reese, 2000) have found there is no significant cultural discontinuity between home and school or between cultures. Bradford and Harris (2003) study sought to determine whether typically developing African American children's culturally based mainstream and ethnocultural knowledge increased between grades four and six. Two questions guided their research. They wanted to know whether or not there were developmental increases and performance differences in the accuracy and number of free associations for mainstream and ethnocultural information across grades four, five and six.

The study included 58 African American children from Memphis, Tennessee. Twenty-six students were from high income families, 28 from middle income families, and 4 from low-income families. Ethnic identification was based on the self-report of the parents or caregivers. Students were selected if they were enrolled in general education curriculum, negative history of academic retention, a grade point average of 2.5 or better, and the judgments of school principals, classroom teachers and parents.

The Test of Core Knowledge was used as the dependent variable in the study. The Test of Core knowledge was developed by the authors for the purpose of the study. The instrument contained 10 items in each of six content domains: (1) mainstream history, (2) African American history, (3) mainstream arts, (4) African-American arts, (5) mainstream news events, and (6) African American news events, for a total of 60 items. Measures of the instruments internal consistency yield Cronbach's alpha of .80 for mainstream cultural items and alpha .87 for the ethnocultural items.

A 3 X 6 quasi-experimental design was utilized to examine the main effects and interaction of grade level and content domain on the performance of the participating students. In order to answer the research questions, the researchers used repeated measure multivariate analyses of variance to determine the effects of grade and content domain on participant's knowledge of mainstream and African American cultural information. They found that as grade level increased, the number of accurate associations also increased for each content domain. Participants also performed differently across grade levels in their knowledge of mainstream and African American cultural information. Fourth graders tended to produce fewer accurate associations than fifth and sixth graders. Bradford and Harris (2003) also found that participants differed in their knowledge of mainstream and ethnocultural information. They also found that participants from higher income backgrounds consistently outperformed participants from middle-income backgrounds in all content domains.

In summary, Bradford and Harris found that the discontinuity between the home and school may not exist. In fact they argue that African-American children's knowledge of mainstream culture is as developed as their knowledge of African-American culture. Hence, the students in the present study were more culturally aware of mainstream culture in terms of mainstream art than they were of African-American art. They were more aware of African American history and news events than they were of mainstream history and news events. One could argue that the cultural schemata effects that were found with different cultures could be smaller when researching sub-cultures within a dominant culture.

In response to the literature on the discontinuity between the home and school, Reese and Gallimore (2000) decided to investigate Latino immigrant parent views about literacy. They wanted to compare literacy activities at school versus the home. To answer their research questions, the authors invoked data from a 12-year longitudinal study conducted in California. Reese and Gallimore sought to document that the immigrant families in their study share a model of literacy development that tends to become modified by immigration history and family level of acculturation.

The authors included several study samples in their analysis: ten families of Spanish-speaking kindergarten students, 29 families selected at random from a larger survey of 121 immigrant Spanish-speaking families of kindergarten students, and 121 families of the survey sample. All families were interviewed at their homes, by project-trained Spanish-speaking interviewers who followed a standard protocol. In addition, each of the case study families was interviewed at home several times each year. Parents were probed regarding their family literacy activities: reading proficiency development, age appropriate for reading instruction, and reactions to children's attempts at reading activities.

The majority of the parents in the sample came from Mexico. The majority of their children were born in the United States, with less than 3% originating from Central America. Mothers tended to have lived less time in the United States than the fathers. The majority of the workers were employed in skilled and unskilled industries.

The researchers analyzed the results by identifying cultural models from interview transcripts and observation field notes. The researchers looked for recurring use of the same words and images by different informants in their descriptions of their child's

reading and learning activities. Reese and Gallimore found the mothers in the study all viewed literacy activities as formally taking place at school. Mothers in their study contended that learning to read was first taught by teachers through constant repitition. Mothers believed that their children were unable to understand any type of reading activities before the age of five. Thus, the authors argue that parents failed to view literacy activities performed at home by students. For example, many of the parents in the sample did not encourage children attempts to write or read before attending school. Reese and Gallimore suggest that "some parents view early reading or writing attempts as amusing (114)." For many of the families in the study, literacy activities centered on moral development in that mothers would use the Bible not as a literary tool but as a means of teaching children right from wrong. Children were encouraged to remember certain verses from the Bible.

The researchers found that parents' beliefs and practices about literacy development were influenced by their parents and grandparents. However, an interesting caveat in this study is that parents' beliefs are also mediated by their assimilation into the American culture (i.e., school) and the number of school age children. The researchers found that parents' literacy practices at home changed once children started attending schools. For example, whereas 26.7% of parents reported reading to children at the beginning of kindergarten, by the end of the first grade the percentage had risen to 90%. Thus, mother's response to school initiated home reading resulted in changes over time in their perceptions of the nature and value of reading aloud to young children.

The following study highlights the importance of the fluidity in culture. It highlights that although the culture of the home was different at first from the school

culture in terms of children preparedness, parents in the sample adapted well to the culture of the school and was able to provide their children with literacy activities and also changed their views on early preparedness for their other children.

Cultural Values as Instructional Tools

Other research stemming from the cultural values perspective tend to utilize Afrocentric values and beliefs as an explanation for enhancing school achievement. Allen and Boykin (1992) suggest that Afro-cultural styles are linked to eight interrelated dimensions of the African-American cultural experience. The dimensions are held to have grown out of traditional West African belief systems. Helms (1992) identifies these eight dimensions as: (a) spirituality, greater validity of the power of immaterial forces in everyday life over linear, factual thinking; (b) harmony, the self and one's surrounding are interconnected; (c) movement, personal conduct is organized through movement; (d) affect, integration of feelings with thoughts and actions; (e) communalism; valuing one's group more than the individual; (f) expressive, unique personality is expressed though one's behavioral style; (g) orality, knowledge may be gained and transmitted orally; (h) social time, time is measured in socially meaningful events and customs.

To study orality in the African-American tradition, Lee (1995) focused on the efficacy of signifying as a form of social discourse used in the African-American community and as a scaffold for teaching skills in literary interpretation. Lee sought to examine whether or not a cultural style of communicating could be used to aid students in their literary interpretation. She detected that signifying and prior knowledge measures showed statistically significant correlations with achievement.

Following the same line of research, Albury (1992) sought to explore the notion of communalism in the classroom and whether or not cooperative learning would be more beneficial for African-American than for European-American students. In his study, Albury asked low-income children from the same school to learn 25 unfamiliar words. He had three conditions. The individual criterion was the first group. Students in this group were informed to study alone and if they scored better than 15 they would receive a prize. In the "interpersonal competitive group, children were told again to study alone and the three highest scorers would receive a prize. In the third group, the traditional cooperative learning group, students were told to study together and if their group was the highest at post-test, they would receive a prize. Albury found that European-American students did well across conditions but preferred the individual condition; however, African-American students performed better when they were placed in a cooperative learning environment.

Culture and Curriculum

The infusion of culture into the curriculum has been the area of greatest interest to individuals working with minority students in hopes of motivating them to be learners in the educational setting (Delpit, 1995). Willis (2002) in her qualitative study reviewed the research literature pertaining to teacher training, culture, and motivation in the classroom. Willis' research was inspired by an assignment that her son received in middle school, in which she argues that his cultural identity was not taken into consideration. She argues that failure to incorporate cultural identity impedes one's motivation to learn in the classroom. Kohl (1991) has already found that Hispanic students in California refused to learn English because they felt that learning English would diminish their ethnic identity.

The cultural homogeneity in the mainstream curriculum does not make allowances for students from diverse cultures. In her qualitative study, Willis (2002) reported that teachers found teaching in a traditional Eurocentric way easier than using a multi-cultural perspective.

To study the effects of culture and curriculum, Casteel (1995) explored the relationship between literature and student comprehension. If presented with materials depicting their own race and culture, would African-American students read and comprehend those passages more thoroughly than text portraying a Caucasian protagonist? To test his hypothesis Casteel presented 18 passages to 87 seventh grade students attending school in an urban public school district. Students silently read passages consisting of stories in which the protagonist was European-American or African-American. Afterwards, students were requested to respond to 20 multiple choice questions constructed by the publisher of the passages. Readability of passages and student prior achievement were accounted for in the study. Therefore, both high and low ability readers read the same materials.

All participants' scores were higher after reading Caucasian passages as compared to passages revolving around African-American protagonists. He found that African-American participants read Caucasian text more closely and carefully. Thus, racial imagery was not an effective facilitator of comprehension. This conclusion is in contrast to Boykin's assertion that students will learn better if only presented with materials from their frame of reference. However, Casteel suggests that students may have found the passages to be negative although the author did not find this to be the case. Students reported that the stories made fun of African-American people, belittled African-

American people, and painted the African-American protagonist as being riddled by too many problems (Casteel, 1995).

Although Casteel was one of the first to study the effects of racial imagery and recall in African-American students, the conclusions from his study should be interpreted with a degree of caution. Casteel's study represents one of the difficulties in operationalizing the African-American construct. Casteel chose to represent African-American culture in terms of images of the characters. In other words, stories were chosen to reflect either an African-American or European-American protagonist. Passages were also chosen according to interest level and were derived from basal readers. A validity check of the construct was not provided. Therefore, it is unclear whether or not the materials chosen represented what was being studied.

Reading level of materials was controlled for by age instead of by grade. According to Casteel, passages were designed for the intermediate-age (11-14). Controlling reading materials by age instead of grade creates variability within the instrumentation itself. Thus, a difference could be explained by the instrumentation versus the independent variable. Casteel's study is also limited by its mono-operation bias; that is, Casteel used one form of measure to evaluate comprehension instead of using multiple methods. Casteel recommended that further studies need to be conducted to evaluate additional factors that may affect the current findings. He advised that additional studies should incorporate sample-size, number of passages read, type of passages read, and the self-esteem of the student.

As a follow-up to Casteel's study, Bell and Clark (1998) examined the effects of racial imagery (African-American and Euro-American characters) and cultural themes

(African-American and European-American) in reading content on recall and comprehension of African-American children in grades one through four at a developmental research school in Florida. Bell and Clark treated the grades as two groups. Students in grades one and two were grouped together. Students in grades three and four formed another group. To control for gender and achievement level, students were equally distributed across conditions. Thus, grade-level and story content were the independent variables in the study.

The researchers believed that stories depicting African-American characters and African-American themes would facilitate efficient recall and comprehension compared to those revolving around European-American characters and European-American themes. Unlike the Casteel study, Bell and Clark separated recall of events from comprehension. In their study Bell and Clark asked students four recall questions that focused on settings and events. They also asked two comprehension questions that were developed by the researchers. Students in both clusters heard stories from a recorder. One third of the students across grade levels listened to a story composed of African-American characters and African-American socio-cultural themes (Condition 1); one third of children across grade level heard a story composed of Euro-American characters and Euro-American cultural themes (Condition 2); and one third of the children heard stories depicting African-American characters and European-American socio-cultural themes (Condition 3).

In their study, Bell and Clark discovered that across grade levels the proportion of participants recalling half or more of the characters was not greater for the story with African-American characters and African-American themes than for the story with

African-American characters and traditional European-American themes. A grade-level effect was found to be significant. Students in the third-fourth grades cluster were able to recall more than half of the characters for the story with African-American characters and African-American themes than for African-American characters and European-American themes. Additionally, it was found that across grade level, the proportion of students recalling half or more of the events were greater for those exposed to the story with African-American characters and African-American themes than those exposed to the story with African-American characters and traditional European-American themes.

Comprehension scores were significantly higher for the story with African-American characters and traditional European-American themes than for the story with European-American characters and traditional European-American themes when the relationship between races of characters was examined. When socio-cultural themes were examined, the mean score for comprehension was significantly higher for the story with African-American characters and African-American themes than for the story with African-American characters and European-American themes. Once again, students in the upper grades were able to comprehend more than students in the lower grades.

Although the results of this study are impressive, caution should be exercised upon interpretation. The nature of the participants attending a research school in Tallahassee, Florida limits generalizing the results to other African-American students attending urban schools. It is also unclear whether or not the level of difficulty in the materials was controlled before they were presented to children. Bell and Clark report that the stories selected corresponded to the specific age-grade level for each child. However, Bell and Clark grouped their participants by cluster. In other words, it is

unclear whether or not the grade one to two cluster heard grade one level material and so forth.

Teacher reports were used to obtain the achievement level of the child and then were equally distributed across conditions. Teachers as tests are not always reliable. A standardized measure of achievement could then have been used to determine achievement level, but was not. Grade-level effects were a consistent finding across conditions, with the upper classes performing significantly better than their lower class peers. However, would an effect for grade level be significant, if age was used as a covariate to control for the developmental nature of reading?

Unlike Casteel's study, Bell and Clark utilized more than one dependent variable to evaluate their construct of interests. Thus, Bell and Clark asked two separate forms of questions to measure recall of events and settings and comprehension. The Bell and Clark study is limited because the measures chosen to evaluate the construct suffer from a mono-method bias (i.e., one type of questions was used) and limited number of items on their dependent measures. Bell and Clark asked two comprehension questions. The number of items on a test normally affects reliability, other things being equal. The number of items on tests increases the potential variability of students within the group. Thus, a two-item test limits variability.

In line with previous research, Rickford (2001) argues that culturally relevant texts – both traditional ethnic folk tales and contemporary ethnic narratives – combined with higher order comprehension questions of interpretation and evaluation, rather than low order questions of basic recall and recognition, provides excellent material for teaching reading to ethnically diverse students. Rickford draws her data from a research

project she conducted between 1994-1996 in a combined sixth and seventh grade classroom of 25 students. Her subjects attended a K-8 public elementary school in an urban enclave in Northern California. The majority of her subjects scored below the 50th percentile on the 1994 California Test of Basic Skills. Rickford cites several work to support her thesis of the importance of culturally relevant materials. She cites Hornburger (1985) who pointed to the importance of the psychological constructs of interest that Black school aged-children demonstrate in reading works with which they can readily identify. She argues that this interest in materials is the initial step in the development of their reading and language arts skills. Rickford cites other studies that show an indirect relationship between culturally relevant materials and reading comprehension and school attendance.

The qualitative research project grew out of Rickford's relationship with her sixth and seventh grade students. Her thesis was formulated when a reading class became alive upon introduction of a black folk-tale into the curriculum. Therefore, the purpose of the study was to examine the effects of culturally relevant narratives and strategically constructed questions on the reading enjoyment and comprehension of ethnically diverse students. Rickford selected six culturally relevant materials. Of the six stories that were selected, three were Black (African or African-American) folktales, and the other three were contemporary Black short stories. To test student comprehension, Rickford included nine comprehension questions. The comprehension questions consisted of enjoyment, literal meaning, moral judgment, and problem-solving questions. According to Rickford, the comprehension questions maintained the same form and structure and

wherever possible, similar verbal, content to ensure internal consistency across all narratives.

The results of the study suggested culturally relevant texts increased student enjoyment, interest, and motivation, resulting in improved performance in reading comprehension. Rickford also found that students connected with the stories they read, reporting that it was similar to their own life. Rickford also found that students continued to demonstrate difficulties with literal, fact-based questions because they tended to be distracted by distracters in the stories. However, on inquiry of their personal opinions, students were able to use their own personal stories to understand the material.

Summary

In summary, research examining the effects of culture and achievement on reading comprehension has produced differing results. In some studies, the conclusion is drawn that African-American students do well when provided with materials or when instructed from their belief system (Allen & Boykin, 1992); on the other hand, some studies have illustrated no significant differences in achievement (Casteel, 1995). The conflicting results found in these studies could be attributed to the considerable challenges encountered in operationalizing a belief or value system and in testing an assumption. Casteel's study was the one of the first to empirically test the effects of culturally relevant reading content and comprehension. His results did not support the cultural argument that if African-American students are presented with materials from their own cultural frame of reference they would perform significantly better. Racial imagery did not facilitate recall of events and settings for African-American students in the seventh grade. To study the effects of culturally relevant materials further, Bell and

Clark combined racial imagery with Afrocentric themes. Although racial imagery did not facilitate recall of events and settings, racial imagery combined with Afrocentric themes did facilitate comprehension as measured by the researchers. The two studies also varied in the methods employed to measure comprehension. Casteel measured comprehension by focusing on recall of events and settings. Bell and Clark had two measures for comprehension. They looked at recall of events and settings as separate from comprehension. And in doing so, most of their significant results were found when they assessed for the differences in comprehension based on content versus the facilitative effects of recall of events and settings. Due to the differing results emanating from this field of study, more experimental research needs to be conducted to ascertain to what extent the cultural infusion in the curriculum is a viable option for reducing the achievement gap between the two races, particularly as it pertains to reading comprehension.

CHAPTER 3

METHODS

This chapter describes the study's methodology, and is organized into five sections. Section one describes the process of recruiting students. Section two describes the communities from which students were selected. The third section provides a detailed outline of how materials were chosen. The fourth section provides reliability and validity data regarding the dependent measures. The final section details how the collected data were evaluated.

Participants

A power analysis (.80) with .05 alpha and a medium effect size of .25 suggested that a subject pool comprised of 150 students would be of satisfactory size to detect a significant result between and within subjects groups, as well as any interactions between the independent variables. As a result, 50 African-American students from each grade (i.e., third, fourth, & fifth) were recruited to participate in the study. Participants were students attending one of two urban elementary schools: one was located in the Northeastern region of the United States and the other in the Southern region of the United States.

Prior to sending permission letters to parents, approval was obtained from the School Board, Coordinator of Pupil Appraisal Services, and participating School Principals. Participation in the study was contingent upon receipt of parent consent, student assent, and permission from each school principal. The researcher informed all potential participants about the project in their respective classrooms at school. Students were then presented a summary of the research goals and a letter which needed to be

signed by a parent or guardian to secure permission to participate in the study. Students were given an average of two days to return a signed letter. Most classroom teachers provided incentives for the prompt return of forms (see Appendix A for an example of the letter).

Table 3.1

Distribution of Participants in the Study by Grade and Region.

	Third Grade	Fourth Grade	Fifth Grade
Northeast	25	13	4
Southern	41	43	29
Total	66	56	33

Setting

Participants from the school in the Northeast were selected from a student body of 918. Approximately 32% of the student-body were African-Americans, 53% were Hispanics, 13% were Whites, and .3% were Asians. Seventy-four percent of the students were eligible for free or reduced price lunch. Information collected from the State Assessment reported that in 2002, 27% of the third graders had failed reading, whereas 25% of the fourth graders were performing below level. No data were available for students in the fifth grade (Massachusetts Department of Education).

Participants from the school in the South were selected from a student body of 514. For the previous academic year, the school had a School Performance Score (SPS) of 74.7 indicating that the school had been performing academically below the state average. For the 2002-2003 school year, the school had a SPS of 64.4 suggesting that the

school had declined in performance. The majority of students attending this school were African-Americans. Eighty-nine percent of the students participated in a general education classroom, and 11% of the students participated in special education classes exclusively. Fifty-nine percent of the students were being educated in a classroom with at least 26 other students (Louisiana Department of Education Report Card).

As of spring 2003, 32.2% of the total population of fourth graders was assessed to be approaching the basic level in Language Arts, and 33% was assessed to be performing at an unsatisfactory level. Based on national performance assessments, third graders performed below the district and state average in Language Arts, whereas fifth graders performed slightly above the district and state average. Both participating schools served underprivileged neighborhoods and are comprise of students who perform below the expected levels of reading for their respective age and grade placement (Louisiana Department of Education Report Card).

Materials and Procedures

African-American CBM Reading Passages

To begin, materials representative of the third through fifth grades were selected from African-American children's literature. The pool of African-American children's literature from which passages were selected were based on the recommendations of librarians from both urban and rural communities and included winners of the Correta Scott King Award for African-American children's literature. Black authors well known and respected for their role in writing award winning children's literature were also selected. Black authors also were identified via the reference book "Black Authors and Illustrators of Books for Children and Young Adults (Murphy, 1998)."

Once culturally relevant literature was selected, the pool of selected passages included material representative of the following themes:

1. Family interactions: Family interactions included passages which depicted any contact between family members inside or outside of the home. For example, interactions could include conversations that occurred at the dinner table, a conversation between parent and child, or the social exchange of a parent supporting a child at a school event.
2. Peer interactions: Peer interactions included passages which depicted any interaction with a friend in or outside of the home. For example, interactions could be those which transpire on a basketball or baseball court, or as friends gather in the home of a peer.

Using methods outlined by Hintze, Shapiro, Conte, and Basile (1997) three passages of at least 250 words each were developed for each grade. Potential passages were sampled from narrative text only. Expository passages and passages written in poetic or dramatic format were excluded. Each passage selected was retyped to minimize the effects of pictures and different forms of print upon students' readings. For measurement purposes, a second copy with a cumulative running word count printed in the right-hand margin was provided to the examiner for each student (Hintze et al. 1997).

Once passages were selected, each 250-word passage was evaluated for readability; that is, the difficulty of each passage was evaluated. For each selected passage for the third grade, a readability score was calculated using the Spache formula (1953). The readability score for passages taken from the fourth and fifth grade levels was calculated using the Dale and Chall (1948) formula. For a reading passage to be

considered for selection, the readability score needed to be within 0 to 9 months range for a particular grade level (i.e., 3.0 to 3.9 for the third grade). Passages which did not satisfy this criterion were discarded. The sampling procedure was continued until three reading probes were identified for each grade.

Table 3.2

Readability Levels for African-American Reading Passages.

Passages	Third Grade	Fourth Grade	Fifth Grade
First	3.4	4.8	5.5
Second	3.1	4.7	5.4
Third	3.5	4.9	5.0

Note. The Spache formula (1953) was used to calculate the readability levels for the third grade, whereas Dale and Chall formula (1948) was used to calculate the readability levels for fourth and fifth grade. Passages were developed from the following books: "Getting through Thursday", "Between Madison and Palmetto", "More Stories Julian Tells", "Keeper", "The Mouse Rap", and "Jazmin's Notebook."

To ensure the face and social validity of the materials chosen, three graduate students in areas of special education and education administration were asked to read the selected passages and to assign one of three numbers, depending on the passage content. Specifically, the passages were rated on a 3-point scale for which a rating of: (a) one indicated a definitive "yes" for passages reflecting Afrocentric content and themes; (b) a rating of two indicated a definitive yes for passages reflecting Eurocentric content and theme; (c) and a rating of 3 indicated that passages represented neither Afrocentric nor Eurocentric literature. Passages rated 3 were discarded (see Appendix B for examples of

passages). Table 3.2 reflects the difficulty levels of the passages selected and used in this research.

European-American CBM Reading Passages

In a manner similar to that described for African-American passages, materials representative of the third through fifth grades also were selected from Eurocentric children's literature. Eurocentric passages were selected based on the recommendations of librarians and includes Newbury book award winners. Eurocentric authors well known and respected for their role in writing award winning children's literature also were selected. The same methods for establishing difficulty level of African-American passages were used in selecting reading material from Eurocentric children's literature (see Appendix B for examples of passages). Table 3.3 reflects the difficulty level of European-American passages selected and used in this research.

Table 3.3

Readability Levels for European-American Reading Passages.

Passages	Third Grade	Fourth Grade	Fifth Grade
First	3.3	4.6	5.6
Second	3.6	4.8	5.4
Third	3.2	4.2	5.7

Note. The Spache formula (1953) was used to calculate the readability levels for the third grade, whereas Dale and Chall formula (1948) was used to calculate the readability levels for fourth and fifth grade. Passages were developed from the following books: "Hope was Here", "Because of Winn Dixie", and "Ramona's World."

Dependent Variables

The dependent variables used in the study included Curriculum Based Measurements to reflect oral reading fluency, reading comprehension as measured by the Sentence Verification Technique, the Hare General and Area-Specific Self-esteem Scale, and the Peabody Picture Vocabulary Test. Details describing these measures are provided below. The validity and reliability of the measures are discussed and a rationale is provided as to why they were chosen. Procedural guidelines are also presented outlining when and how students were administered the measures.

CBM Oral Reading Fluency

Oral reading fluency is defined as a combination of speed and accuracy in reading text. The number of words read correctly per minute served as a student's individual score on a passage. Words read correctly included those words that were pronounced correctly, given the reading context. For example, the word "read" needed to be pronounced "reed" when presented in the context of "He will read the book," not as "red." Repetitions were not counted as incorrect. Self-corrections within 3 seconds were counted as correctly read words (Deno, 1989; Marston, 1989; Shinn, 1989).

The following types of errors were counted: (a) mispronunciations, words that were misread, example dog for dig; (b) substitutions, words that were substituted for the stimulus word, example dog for cat; (c) and omissions, words skipped or not read. When a student skipped an entire line, he or she was redirected to the reading material and 1 error was recorded. Also, if a student was struggling to pronounce a word or hesitated for 3-seconds or longer, the student was told the word, and it was counted as an error (Shinn,

1989). Research supports the reliability and validity of oral reading fluency and CBM in assessing oral reading fluency and comprehension in students.

CBM Administration Procedures

Participants were asked to read six grade-level CBM oral reading fluency passages in one assessment sitting. It took each student approximately 10 minutes to come to the testing room, read the materials, and return to class. The order of presentation of the reading passages was counterbalanced. For example, a student in grade 3 may have read passages from a booklet that contained African-American passages first and then Euro-American passages or vice versa. Passages within a reading set were not counterbalanced. Before beginning each assessment session, the data collector repeated the following:

> "The first three passages you are about to read were taken from books that primarily focus on European American /African-American characters, themes, and stories. When I say, "start, begin reading aloud at the top of the page (demonstrate by pointing). Try to read each word, even those you do not know. If you come to a word you don't know, I'll tell it to you. Be sure to do your best reading. Are there any questions? Start."

After explaining the directions, the data collector gave the student a booklet containing all 6 passages. The student was asked to turn to the first passage. When the student had turned to the first passage, the data collector then instructed the student to begin reading aloud. The data collector marked errors on the corresponding scoring sheet as the student read. Separate scoring sheets were used for all students. At the end of 1 minute, the student was asked to stop reading. The student was allowed to finish if he or

she was in the middle of a sentence, however the data collector would have marked the last word the student read at the 1 minute mark. The student was asked to repeat the same procedures until all probes had been read. At the end of each reading probe, the data collector computed the number of words read correctly during that minute. The median number of words read correctly across the three passages in the African-American literature and European-American literature served as the summary data for CBM oral reading fluency performance. Research suggests the use of median score controls for any severe variance that might have occurred due to extreme scores (Shinn, 1989).

Sentence Verification Technique (SVT)

The sentence verification technique is a method of developing comprehension tests from curriculum materials to be used in the classroom. The SVT is based on the theoretical assumption that reading comprehension is a constructive process involving an interaction between the text and the reader's prior knowledge. This interaction is said to create a memory that preserves the meaning of what is read, but does not preserve the exact words. Therefore, SVT tests provide an index of how successful readers are at constructing meaning (Royer, 2001).

Hence, Royer (2001) argues that comprehension is a process that can be influenced by socio-cultural experiences. In other words, individuals growing up in one cultural context may interpret a text differently than individuals growing up in another cultural setting. For our purposes, one would hypothesize that African-American students would create and/or preserve memory of African-American passages at a greater level than they would passages containing European-American information.

Considerable research has been conducted to evaluate the psychometric properties and uses of SVT tests (Royer, 2001). This research demonstrates that SVT tests have good reliability and validity and that this assessment can be used for a variety of purposes. SVT tests consisting of three passages and their accompanying 16 test sentences have reliabilities in the .5 to.6 range. SVT tests based on six passages tend to have reliabilities in the .8 to .9 range. For the purposes of this research, three passages were used due to student's attention span during a pilot demonstration. That is during the pilot study, students were observed to be off-task when presented with six passages. They were observed to be rushing through the assignment and guessing. In order to read six passages and answer all the questions, students were spending an average of 50 minutes. Thus, the assessment time ran too long and in discussing with the chair of the dissertation committee, the researcher decided to use Sentence Verification as a one-time assessment rather than as a repeated measure. Hence, students were either given African-American or European-American passages.

Research on the validity of SVT tests has established that (a) readers who are considered by teachers to have good comprehension skills perform better on the SVT tests than readers deemed to have poorer skills, (b) performance on the SVT tests varies in accordance with the measured readability, (c) SVT tests measures passage comprehension rather than sentence comprehension, (d) performance on the tests varies in accordance with working memory capacity, (e) and SVT test performance is positively correlated with performances on other tests that measure attributes related to comprehension ability (see Appendix C for test development procedure). The readability levels of the passages are provided in Table 3.4.

SVT Administration Procedures

Participants completed a SVT reading test by reading a passage and then turning to a page of test sentences to be responded to without returning to the original passage. Participants were group administered the reading test. Participants were provided an answer sheet, a comprehension booklet, and a pencil. Materials were placed faced down when students entered the testing room. Once students were seated and appeared ready to work, the examiner asked them to turn to page one and read:

> "This is a test to see how well you understand stories that you read. You take the test by reading a story. Then you mark test sentences YES if they mean the same thing as a sentence in the story. You mark them No if they have a different meaning than a sentence in the story. Let's try an example from a story about a family that owns a restaurant. Read the story below and then we will answer the test questions."

Students were given 5 to 10 minutes to read the practice story. At the end of 10 minutes, students were told to turn to page two in order to answer the test questions that followed. Instruction was once again given as to how to answer the test sentences. When students had completed answering the test sentences, the example items were corrected as a group. It was made clear to students that the test sentences consisted of meaning-change, paraphrase, original, and distracter sentences. Students were asked if they had any questions. Questions were answered and students were told to begin. Students were monitored during the assessment to ensure that no one turned back to a story that had already been read. When students finished the task, they returned their pencil, answer

sheets, test booklets, and returned to class (see Appendix D & Appendix E for examples of reading booklets).

Based on interpreting guidelines provided by Royer, student responses were graded and scores represented as percentages of correct responses served as data points. For example, Royer has suggested that the average student typically answers 75% of test items correctly, with poor comprehenders scoring in the 70% or lower range, and good comprehenders scoring in the 80% and above range.

Table 3.4

Readability Levels of the Sentence Verification Comprehension Passages.

Grade	African-American Passages	European-American Passages
3	3.5	3.4
	3.2	3.4
	3.2	3.5
4	4.7	4.4
	4.6	4.7
	4.9	4.7
5	5.6	5.5
	5.4	5.4
	5.3	5.6

Note. The Spache formula (1953) was used to calculate the readability levels for the third grade, whereas Dale and Chall formula (1948) was used to calculate the readability levels

for fourth and fifth grade. Passages were developed from the following books: "The Mouse Rap", "More Stories Julian Tells", "Between Madison and Palmetto", "Hope was Here", A Year Down Yonder" and "A long way from Chicago".

Peabody Picture Vocabulary Test-Third Edition

The PPVT-III was administered to assess the background knowledge (i.e. vocabulary knowledge) of the participants. The PPVT-III is a test of listening comprehension for the spoken word in Standard English. It has two purposes: as a measure of an examinee's receptive vocabulary and as a screening test for verbal ability. The PPVT-III test items consist of two distinct parts: the stimulus word and the four picture test plate. The stimulus word is depicted by one of the four illustrations. The other three pictures are decoys (Dunn and Dunn, 1997).

Internal consistency reliability coefficients for the PPVT-III range from .92 to.98 for the 25 standardization age groups. The median value is .95 for both form IIIA and IIIB. Concurrent validity of the PPVT-III has been demonstrated with validity coefficients ranging from .72 to .90 with other measures of vocabulary development (i.e., Wechsler Intelligence Scale for Children-Third Edition, 1991; Kaufman Adolescent and Adult Intelligence Test, 1993; Kaufman Brief Intelligence Test, 1990). The PPVT-III was chosen because it is a widely used index of vocabulary development and is commonly used by general and special education support staff to assess generalized achievement. For each student, the raw data score served as the primary datum background knowledge (Dunn and Dunn, 1997).

Peabody Picture Vocabulary Test-Third Edition-PPVT-III Procedures

The PPVT-III was administered in the standard fashion as specified in the test manual. The administration of the measure took approximately 20 minutes per student. All participants were administered either Form IIIA or IIIB. Students were presented with examples prior to beginning testing. After the sample presentation, the suggested starting point for students was based on the age of the test takers (Dunn and Dunn, 1997).

Basal level performance was established by the lowest set of items administered containing one or no errors. Ceiling level performance was established by the highest set of items administered containing eight or more errors. As such, testing did not proceed beyond the ceiling level. Once appropriate basal and ceiling levels were established, the subject's raw score was calculated by subtracting the number of failed items from the highest-numbered item attempted at the ceiling level (Dunn and Dunn, 1997).

The Hare General and Area-Specific Self-Esteem Scale

The Hare General and Area-Specific Self-Esteem Scale was administered to students to obtain an understanding of their self-perceptions as learners. This measure consists of three subscales. It provides area specific scores in the areas of school, peer, and home, and also yields a general self-esteem score. The measure is general in that the sum score on any ten-item subscale is treated as a general self-evaluation for that arena, and the sum score of thirty items is viewed as the general self-esteem measure. Questions on the scale contain both self-evaluative and evaluative items. Thus, the 'I' (self-evaluative) items can be distinguished from the "my parent, my teacher, and my friends (evaluative) statements. These questions are so written to ascertain whether or

not a subject's self-evaluation is in accordance or disagreement with his or her perceptions of the evaluations of significant others (Hare, 1996).

Concurrent validity of the Hare Scale was established by correlating the Hare scale with both the Coppersmith and Rosenberg self-esteem measures (r=.83) (Hare, 1996). The Hare subscales correlated highly with their Coppersmith counterparts. The Home subscale correlated .65 and the School and Peer subscales correlated .75 with the Coppersmith subscales. Internal consistency reliability coefficients for the subscales range from .56 to .74.

Participating students were requested to answer ten questions about their perceptions of self within the educational setting. The Self-Esteem scale was presented between the CBM reading passages. Therefore, half the participants received the School Self-Esteem Scale after reading African-American passages and the other half after reading European-American passages. The evaluator read the directions and statements to students and asked them to circle the letter in front of the answer which best described how they felt about the sentence.

Design and Data-Analytic Plan

The present study utilized a split-plot design suggesting that the design included both a repeated measure and between-subject variables. Culturally matched and unmatched materials was a repeated measure variable because each student read three Afrocentric and three Eurocentric passages, whereas grade level and the SVT assessment served as a between-subject variables. Hence, an independent group of subjects was assigned to each grade. Scores obtained on the PPVT assessment served as a covariate.

In order to answer the research questions, an Analysis of Covariance was conducted to analyze the data. Prior to conducting the analysis, the data were screened to ensure that the assumptions of the statistical test were being met. Thus the data were screened for: unequal sample sizes and missing data; normality of sampling distributions; outliers; homogeneity of variance-covariance matrices; linearity; and homogeneity of regression. After the data were screened, the planned comparison tests were made. Additional analyses included assessment of covariates, interpretation of any independent variable- covariates interaction; and post hoc comparisons.

CHAPTER 4

RESULTS

Introduction

The following chapter provides information by answering the research questions posed in chapter 1. Those questions are:

1. How does reading passage content (i.e., culturally matched and culturally unmatched) influence reading comprehension as measured by oral reading fluency when background knowledge is used as a covariate for African-Americans students enrolled in grades 3 through 5?
2. How does reading passage content (i.e., culturally matched and culturally unmatched) influence reading comprehension as measured by an experimental comprehension task (Royer, 2001) in African-American students enrolled in grades 3 through 5?
3. Does academic self-concept of African-American students vary as a function of reading culturally matched passages or culturally unmatched passages?

This chapter is organized into 3 sections. The first section deals with the organization and screening of the data. After screening the data, the data were further analyzed to determine whether there were differences among students at different schools. Finally, the research questions are answered directly in section three. Tables are presented throughout the chapter to describe the population studied and the dissimilarities present in the student sample.

Data Screening

Prior to analysis, oral reading fluency on Afrocentric and Eurocentric curriculum based passages were examined through various SPSS programs for accuracy of data entry, missing values, and fit between their distributions and the assumptions of the analysis of covariance (ANCOVA). Comprehension scores on Eurocentric and Afrocentric Sentence Verification passages, scores on an academic self-esteem measure, and scores on the Peabody Picture Vocabulary test also were examined through various SPSS programs. Initially, there were 265 students in the sample. Cases were selected for analysis if each student had data on the four dependent measures. Cases were deleted if students had missing data on any of the four dependent measures. One hundred and fifty-five students had all data points on the four dependent measures.

Method 1 of the general linear model was used to evaluate the results, even though there was an unequal distribution of students in grades 3 through 5. According to Tabachnick and Fidell (2001) Method 1 is "like a standard multiple regression with each main effect and interaction assessed after adjustment is made for all other main effects and interactions, as well as for CVs." Hence, each cell mean was given equal weight regardless of its sample size.

In addition, data were screened for within-cell outliers. Two cases in the fourth and fifth grade Afrocentric curriculum based passages were univariate outliers because of extremely high oral reading fluency scores. Outliers were noted also in the fifth grade Afrocentric curriculum based passages because of extremely low oral reading fluency scores. According to Tabachnick and Fidell (2001) outliers can be dealt with by changing the scores on the variables for outlying cases such that they maintain their rank

in the distribution of scores, but the overall range of scores is decreased. Specifically, they suggest assigning the outlying cases a raw score that is one unit larger (or smaller) than the next score in the distribution. Following this suggestion, then, the outliers in the sample were recoded with numbers to represent a unit larger or smaller than the next occuring score in the distribution.

Table 4.1

Descriptive Statistics for the Sample on the Dependent Variables and Covariate.

	M	SD	Skewness	Kurtosis
		Grade 3		
AA CBM	72.8	27.3	.540	.329
EA CBM	65.4	28.7	.529	-.061
PPVT	102.1	14.8	.066	-.622
Esteem	28.7	4.35	-.004	.329
SVT	59.8	13.5	-.322	-.219
		Grade 4		
AA CBM	105.1	32.1	.953	.876
EA CBM	91.8	26.8	.320	.048
PPVT	106.1	19.7	.172	.285
Esteem	28.4	3.38	-.176	-.467
SVT	68.9	12.6	-.168	-.778

Note. Scores obtained on the African-American and European-American curriculum

based passages represent student's oral reading fluency scores. Scores obtained on the Peabody Picture Vocabulary Test (PPVT) and The Hare General and Area-Specific Self-Esteem Scale (Esteem) represents students' raw data score. Scores obtained on the Sentence Verification Technique (Comprehension) represents the percentage of correct items.

Table 4.2

Descriptive Statistics for the Sample on the Dependent Variables and Covariate.

	M	SD	Skewness	Kurtosis
		Grade 5		
AA CBM	102.8	40.7	.540	-.319
EA CBM	109.7	33.1	.510	-.125
PPVT	117.8	22.2	.621	-.106
Esteem	29.3	4.16	.129	.215
SVT	72.19	10.2	-.649	-.212

Note. Scores obtained on the African-American and European-American curriculum based passages represent student's oral reading fluency scores. Scores obtained on the Peabody Picture Vocabulary Test (PPVT) and The Hare General and Area-Specific Self-Esteem Scale (Esteem) represents students raw data score. Scores obtained on the Sentence Verification Technique (Comprehension) represents the percentage of correct items.

Once the data had been screened for outliers, SPSS descriptive analysis was run to evaluate the assumptions of normality and homogeneity of variance. Based on the

information provided, data on all variables fell within the acceptable range. That is, the obtained skewness and kurtosis values were all between plus 1.0 and minus 1.0 (see Table 4.1 & 4.2). The homogeneity of variance was determined by finding the largest and smallest variances over the groups (i.e., grades). A variance ratio was then calculated and was compared to the criterion ratio of 10:1. The variance ratio calculated across group was well below the criterion of 10:1. Test for homogeneity of variance on the covariate showed no concern for heterogeneity of variance (see Table 4.3).

Table 4.3

Homogeneity of Variance: Variance ratio of the Dependent and Covariate Variables.

Variables	F_{max}
AA CBM	2.20
EA CBM	1.34
PPVT	2.23
Esteem	1.72
Comprehension	1.75

Note. The numbers represent the variance ratio as compared to the criterion variance of 10:1.

The assumption of linearity is that there is a direct relationship between two variables. The assumption of linearity was evaluated using a Pearson's r correlation and by inspection of bivariate scatterplots. Based on the correlation between variables, within-cell linearity was established (see Table 4.4). In summary, results of the

evaluations of assumption of normality of sampling distributions, linearity, homogeneity of variance, homogeneity of regression, and reliability of covariates were satisfactory.

Table 4.4

Intercorrelations between scores obtained on the Dependent Variables.

Variables	*AA CBM*	*EA CBM*	*PPVT*	*Esteem*	*SVT*
AA CBM	---	.923**	.422**	.186**	.497*
EA CBM	.923**	---	.450**	.197*	.515**
PPVT	.422**	.450**	---	.264*	.321**
Esteem	.186**	.197*	.264**	---	.240**
SVT	.495**	.513**	.322**	.240**	---

Note. * p< .06 level, two-tailed. **p<.01 level, two-tailed.

Exploring the Data for Sub-samples

The data also were screened to determine whether there were differences across the three schools sampled. Four one-way analyses of variance (ANOVA) were run on the fluency, covariate, esteem, and comprehension measures. The fluency measure is the average score obtained on Afrocentric and Eurocentric reading passages.

Analysis of variance suggested there were no differences between the schools sampled in fluency with F (2, 161) = 1.33, p<.26; comprehension with F (2, 154) = 1.16, p<.31; esteem with F (2, 161) = .28, p<.75; and PPVT with F (2, 161) = 1.98, p<.14. Thus, it is safe to conclude the students in the sample were similar in their reading ability, academic self-esteem, and comprehension abilities across the three different participating schools.

After screening the data for differences between schools, the information collected was reviewed to determine the achievement levels of the participating students. The literature on oral reading fluency suggests that for students in grades 3 through 6, an appropriate instructional level of materials is that read at 70 to 100 words per minute, with mastery in the material being greater than 100 words per minute. Students who read less than 70 words per minute would be frustrated with the passage, and therefore not considered to be on grade level (Shapiro, 1996). Thus, the majority of students in grades 3, 4, and 5 are reading within the instructional level range.

Based on guidelines provided by Royer (2001), students who are able to identify 75% of the items presented on the sentence verification assessment are said to perform in the average range. Students who score 70% or lower are said to be poor comprehenders, with good comprehenders scoring in the 80% range and above. Based on the information collected for comprehension scores, students in grades 3, 4, and 5 comprehension scores all fell within the poor comprehenders range. These results suggest that at least half of the students are poor comprehenders.

Oral Reading Fluency

Data analysis to address the first question and research the hypothesis consisted of a 2 X 3 split-plot analysis of covariance performed on obtained oral reading fluency scores. Independent variables consisted of the content of reading materials (Afrocentric versus Eurocentric curriculum reading probes) and grade level (third through fifth). Scores obtained on the Peabody Picture Vocabulary Test (PPVT) were used as the covariate. Pooled with-in correlations among covariate and oral reading fluency are shown in Table 4.5. Scores on the Peabody Picture Vocabulary test were significantly

associated with the dependent variable, indicating that it uniquely adjusted the scores on the reading content measure F (1, 158) = 28.96, p<.00. Analyses were performed using SPSS General Linear Model (GLM), weighting cells by their samples sizes to adjust for unequal n.

Table 4.5

Analysis of Covariance for Oral Reading Fluency on Culturally Matched and Unmatched Passages.

Source	df	F	ES	P	Power
		Between subjects			
PPVT (P)	1	28.96	.15	.000	1.00
Grade (G)	2	17.14	.17	.000	1.00
Error	158	(1560.4)			
		Within-subject			
(AA-EA)	1	.661	.004	.41	.13
Factor 1 X P	1	2.84	.018	.09	.38
Factor 1 X G	2	33.04	.295	.000	1.00
Error	158	(67.18)			

Note. Values enclosed in parentheses represent mean square error.

Overall, after adjustment by covariate, oral reading fluency did not vary significantly as a function of the type of passage read with F (1, 158)= .661, p<.41.

However, oral reading fluency did vary significantly depending on students' grade level with F (2, 158) = 17.4, p<.00. A Post-Hoc analysis was run using a factorial GLM model utilizing Bonferroni t to compare differences among the means. Post-hoc analysis suggests that across materials read, oral reading fluency was higher for students in grade 5 than students in grades 3 and 4 (see Figure 4.1).

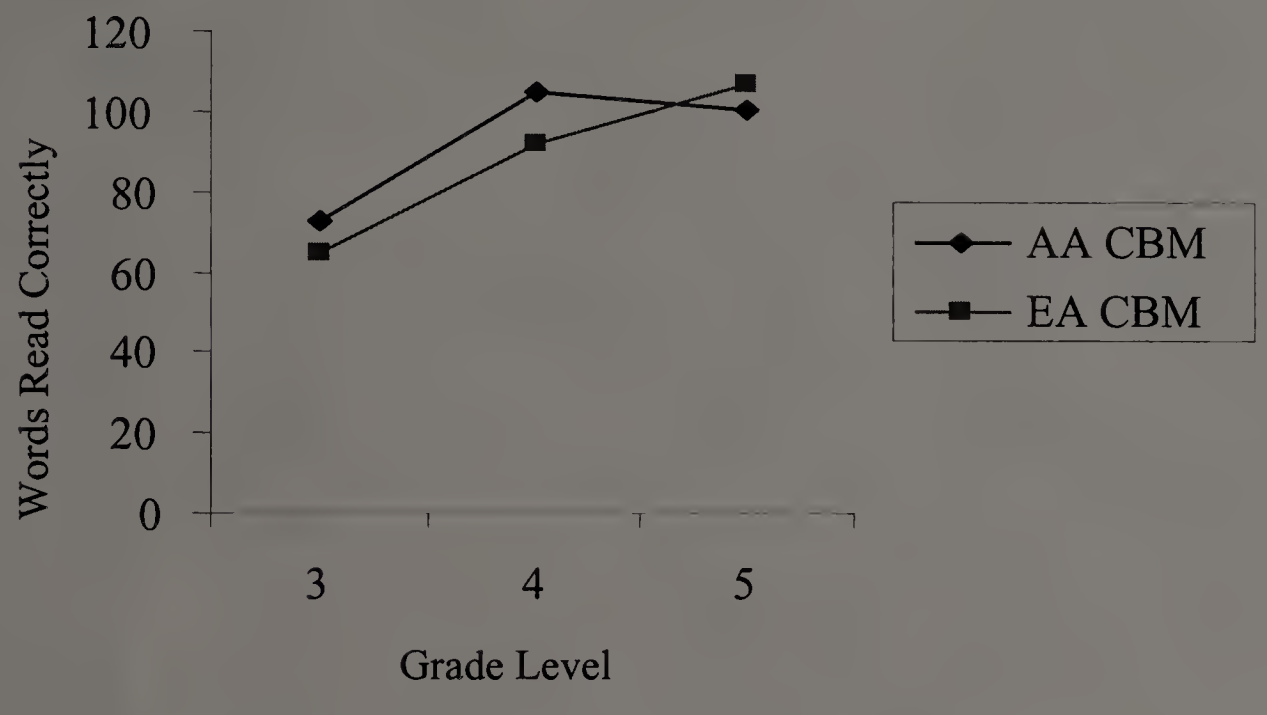

Figure 4.1. Estimated means for oral reading fluency by grade level. Words read correct data represent student fluency with one-minute reading probes with both matched and unmatched materials.

In summary, the data suggest there was no main effect for content of materials. A main effect for grade was found with students in grade 5 reading more fluently than students in grades 3 and 4. Thus in answering the first research question, culturally matched materials did not influence reading comprehension as measured by oral reading fluency when background knowledge was used as a covariate.

Reading Comprehension

Data analysis to address the second question and research hypothesis consisted of a 2 X 3 between-subjects analysis of covariance performed on comprehension scores. Independent variables consisted of current grade (i.e., third through fifth) and the passage content of the comprehension assignment (i.e., Afrocentric and Eurocentric), factorially combined. The covariate was score obtained on the Peabody Picture Vocabulary Test. Results of evaluation of the assumptions of normality of sampling distributions, linearity, homogeneity of variance, and reliability of covariate were satisfactory. There was no presence of outliers.

Table 4.6

Analysis of Covariance for Comprehension scores on the Sentence Verification Assessment.

Source	df	F	ES	p	Power
		Between subjects			
PPVT (P)	1	11.07	.07	.001	.91
Grade (G)	2	11.97	.13	.000	.99
SVT	1	3.25	.02	.07	.43
SVT X G	2	5.19	.07	.003	.87
Error	148	(31.6)			

Note. Value enclosed in parentheses represents mean square error.

The covariate in the evaluation accounted for 7% of the variance, ES=.07. However, after adjustment by scores obtained on the Peabody Picture Vocabulary Test,

comprehension scores did not vary as a function of reading passage content as summarized in Table 4.6, with F (1, 148) = 3.25, p<.07. However, comprehension scores were found to vary as a function of grade. There was a significant main effect for grade with F (2, 148) = 11.9, p<.00. Post-Hoc analysis using a factorial GLM model utilizing Bonferroni t was used to compare differences among the means. Overall, comprehension scores for students in grade 5 were higher than those in grade 3. There were no differences between students in grades 4 and 5. Students in grade 4 comprehended the material better than did students in grade 3 (see Figure 4.2).

Overall, reading passage content culturally matched and unmatched did not facilitate reading comprehension as measured by the Sentence Verification Technique. In other words, African-American students did not read for understanding more when presented with materials from their cultural frame of reference. However as with results obtained on the oral reading fluency measure, comprehension scores differed by grade with students in grade 5 outperforming students in grade 3.

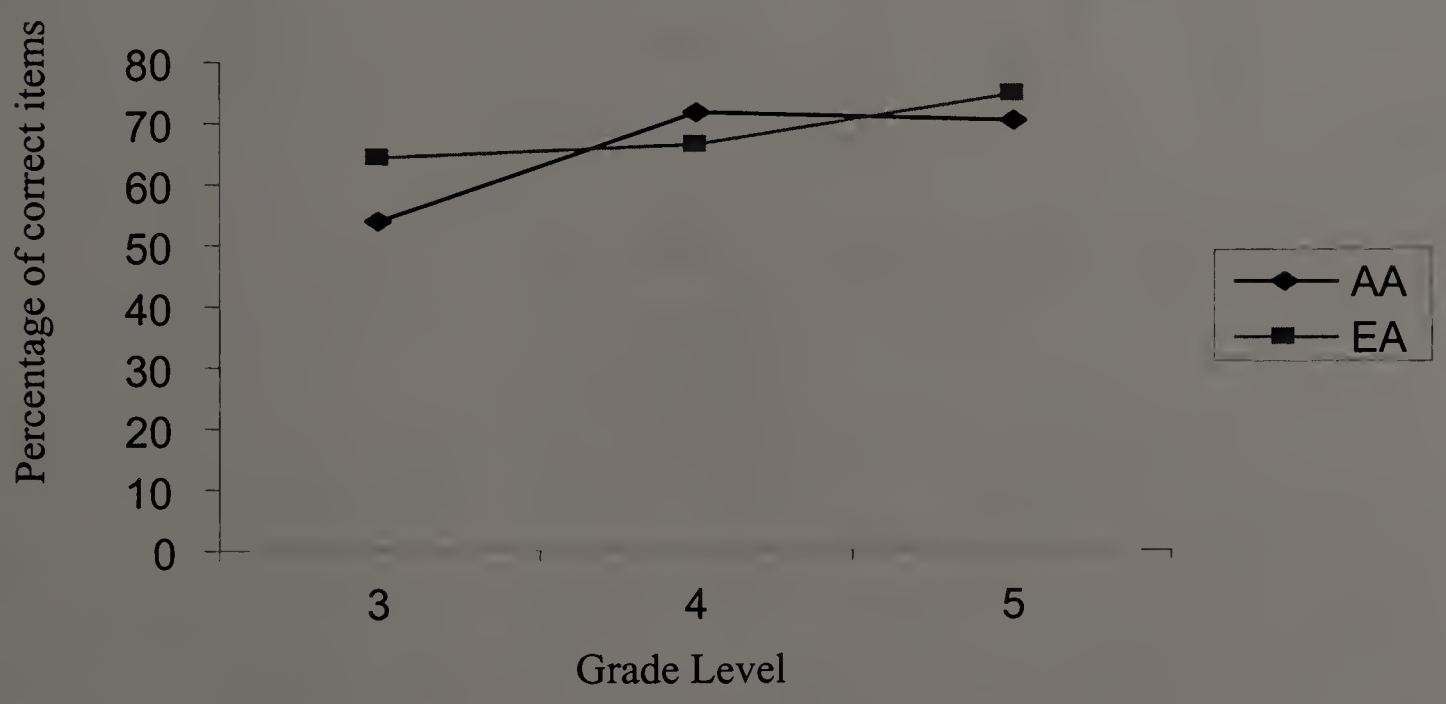

Figure 4.2. Estimated means for comprehension scores on the sentence verification

assessment. Student performance on the SVT reading comprehension task represent percentage of items correct on culturally matched and unmatched comprehension passages. Students who obtained 75% or more of items correct are said to be in the average range. Students who obtained 70% and lower of the items were considered to be poor comprehenders.

Academic Self-Esteem

Data analysis to address the final question and research hypothesis consisted of a 2 X 3 between-subjects analysis of variance performed on academic self-concept scores. Independent variables consisted of current grade (i.e., third through fifth) and self-esteem scores presented after reading either Afrocentric or Eurocentric curriculum based passages, factorially combined. Results of evaluation of the assumptions of normality of sampling distributions, linearity, homogeneity of variance and reliability of covariate was satisfactory. There was no presence of outliers.

No statistically significant main effect was found for grade with $F(2, 155) = .368$, $p<.69$ and esteem type with $F(1, 155) = .23$, $p<.63$ (see Table 4.7). These results suggest there was no difference in student academic self-perception as a result of reading Afrocentric versus Eurocentric based passages (see Figure 4.3). In other words, African-American students' perceptions of themselves were healthy regardless of the content of the materials. There were no significant differences in how they viewed themselves as learners regardless of the content of materials.

Table 4.7

Analysis of Covariance of Esteem Scores on the Hare General-Area Specific Scale.

Source	df	F	ES	p	Power
		Between subjects.			
PPVT	1	10.85	.06	.00	.91
Esteem (E)	1	.23	.00	.63	.07
Grade (G)	2	.368	.00	.69	.10
G X E	2	6.02	.07	.003	.87
Error	155	(13.77)			

Note. Value enclosed in parentheses represents mean square error.

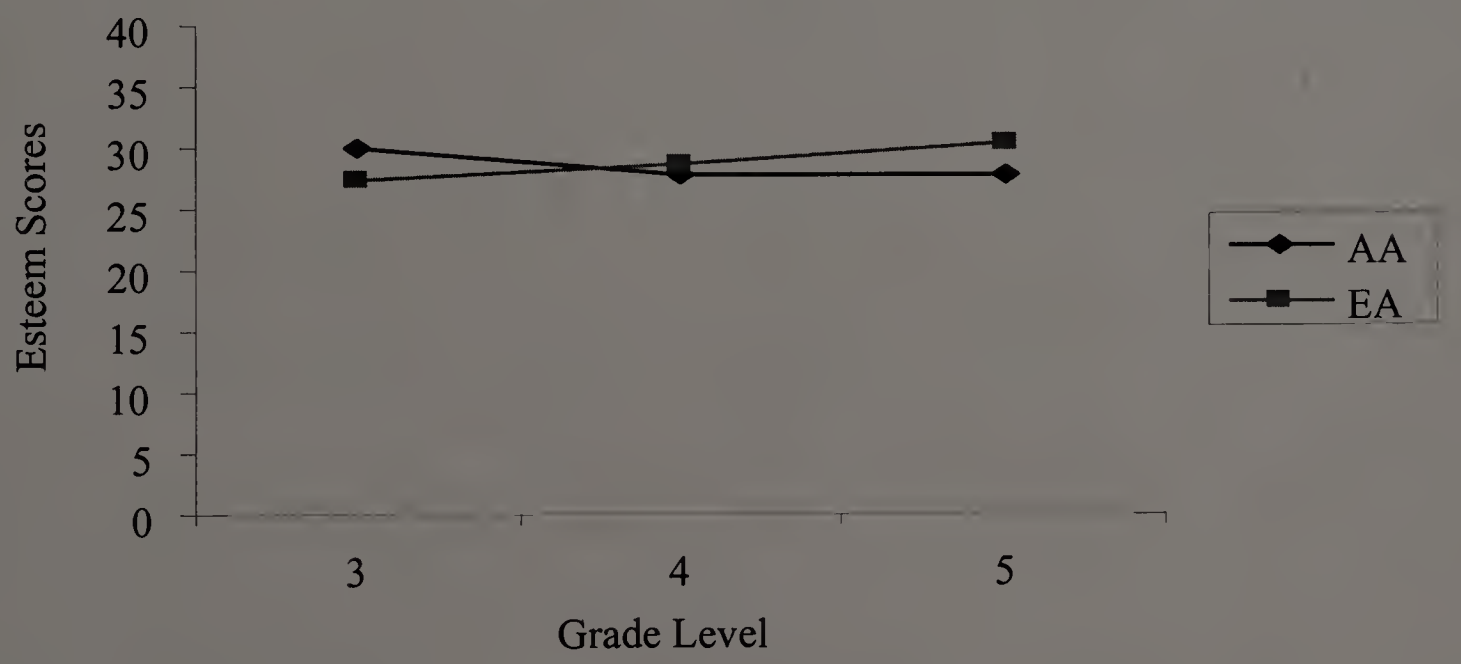

Figure 4.3. Estimated means for scores obtained on the Hare General and Area-Specific scale by grade level. High scores represent favorable attitudes toward self.

In summary, no main effects for materials type was found across dependent variables. In other words, there were no differences between students' performance after reading culturally matched and unmatched materials on the oral reading fluency, sentence verification technique, and self-esteem measures after adjusting for vocabulary knowledge. Hence, reading passage content did not facilitate oral reading fluency and comprehension in the African-American students studied. However, a grade effect was found for oral reading fluency and comprehension scores. Students in the upper grades outperformed students in the lower grades.

CHAPTER 5

DISCUSSION

Introduction

In considering how to change the educational underperformance of African-American students in the United States, researchers have suggested that educators should reduce the discrepancy between schools and the student's home culture. Researchers have argued that one way of decreasing and thus increasing student performance is in using instructional materials which incorporate students' cultural frame of reference. Thus, the present study empirically examined whether students engaged with materials from their own cultural frame of reference would perform better in terms of reading comprehension as measured by oral reading fluency and the sentence verification technique. This study also sought to explore students' self-esteem as a function of the types of materials read.

This chapter is organized into five sections. The first section presents a summary of the findings in chapter 4. Section two offers an explanation of the findings. Section three integrates the findings with past and current literature regarding culture and reading comprehension. In section four, implications of the findings are presented and in section five, limitations of the study are highlighted. In the final section of this chapter, suggestions are put forth for follow-up studies that would further clarify the research questions addressed.

Summary of Findings

The results of this study indicated that overall students' oral reading fluency varied by grade level as would be expected. Students in grade 5 read materials more

fluently than students in grades 4 and 3. However, it was found that there were no differences in reading fluency as a function of culturally matched passages and culturally unmatched passages. In addition to examining oral reading fluency, student reading comprehension was examined using the Sentence Verification Technique. The Sentence Verification results indicated that students' overall performance did not differ after reading culturally matched and unmatched passages as measured by the Sentence Verification Technique comprehension task. However, as with the fluency measure, comprehension scores varied as a function of grade. Students in grade 5 were able to recall more information than students in grade 3. There were no differences in comprehension performance for students in grades 4 and 5. Finally, students in grade 4 obtained higher comprehension scores related to grade 3 students.

To explore students' academic self-esteem, scores were obtained on the Hare General and Area-Specific scale. In this study, students' self-esteem was not found to differ as a function of the materials read. Therefore, there were no differences between how students thought of themselves after reading either passages with Afrocentric and Eurocentric content.

Interpretation of Results

Oral Reading Fluency

The literature on oral reading fluency suggests that reading is developmental. Students in the upper grades should be reading in a faster and more accurate manner than students in lower grades. This relationship held true in this study in that student's oral reading fluency rate in the upper grades was significantly higher than that of students in the lower grades regardless of content of materials. It was hypothesized that when

reading passage content was matched with student on cultural background, oral reading fluency would be significantly higher as compared to when passages were not matched. The results obtained suggest this was not the case. Overall, African-American students did not read better when working with materials containing African-American content.

However, one needs to be cautious in interpreting these results. A priori, a set number of subjects at a .05 alpha with a medium effect size suggested that a sample size of 150 would allow the researcher to find a difference if one truly existed. However, upon the completion of data collection, although a sample of more than 150 students participated, the number of students in each grade differed greatly. At the end of data collection, 66 students in grade 3, 56 students in grades 4, and 33 students in grade 5 participated. Thus, the sample size was insufficient to yield enough power. The independent variable accounted for only 1.8% of the variance. When grade was added to the equation, grade and culturally matched and unmatched materials accounted for 30% of the variance. Hence, there is a large portion of the variance that remains unexplained. In relation to the cultural method of explaining achievement, the present results fail to support the cultural model's hypothesis for using cultural materials to increase achievement.

Reading Comprehension

Whereas oral reading fluency measured the rate at which students read given passages, the Sentence Verification Technique measured how students understood the materials read. The purpose was to measure how students interpret information. Cultural schemata theory suggests that cultural awareness and knowledge will be triggered when students read passages reflective of their culture, thereby resulting in a complete

understanding of the material read. The results obtained failed to establish a clear relationship between comprehension and content of materials. Students' comprehension scores did not vary as a function of the cultural type of materials read. Reading content accounted for 2% of the variance with grade and scores on the Peabody Picture Vocabulary Test accounting for 20% of the variance in Sentence Verification Technique performance. Therefore, 78% of the variance is not being explained by the variables investigated. Hence, the results obtained on the Sentence Verification comprehension task are similar to the overall results obtained on the fluency measure. Therefore, Afrocentric materials did not appear to trigger the student's cultural schema in order to aid with comprehending the text. As indicated elsewhere, the disconnect that is assumed to exist between home and school and the discrepancy between dominant and minority culture may be more myth than fact.

However, let us explore this for a moment. One could argue that poor reading ability hindered student comprehension of the text. To investigate this further, a new variable labeled fluency was created. The fluency variable was derived by adding oral reading fluency scores obtained on African-American and European-American passages and dividing it by two (See Appendix F). An analysis of covariance was run using fluency, grade level, and scores on the Peabody Picture Vocabulary Test as covariates. The fluency variable accounted for 12.6 % of the variance; however even with this follow-up analysis no difference between performance on passages containing African-American and European-American content was found. Therefore, student's reading level is not a viable explanation of the results.

Academic Self-Esteem

In the discussion section of his research Casteel (1995) suggests that future studies should explore the self-esteem of the participants in relation to their academic reading performance. His assertion was in light of the fact that he failed to find significant reading differences between passages containing African-American versus European-American protagonists. Supplementary data collected by Casteel suggested that the students in his study viewed the African-American passages negatively. Hence, the current study aimed to explore what effects would passage content have on students' academic self perception. The results obtained here suggest that self-esteem and reading passage content are correlated. However, students' self-esteem did not vary as a function of the passage read. The research literature would have us believe that students will feel better about themselves if they see themselves being represented in the literature. However, students' perception of themselves was high regardless of grade level and the materials read.

Integrating Current Findings and Past Research

The following section compares present with past results pertaining to the reading comprehension of African-American students. The similarities and differences between the studies reviewed and the findings of the current study are presented. The overall differences in outcomes identified between the studies reviewed appear to vary by the age of participants and their school affiliation. In other words, differences obtained in reading comprehension tend to be more evident at the high school and college level.

The review of the research literature presented in chapter 2 suggests commonalities between previous research and the current study as well as differences.

In reviewing the literature, the areas of interest center on the dependent variable and the manipulation of the independent construct. The differences between previous researchers in operationalizing the cultural construct are striking. Researchers have tended to operationalize the cultural construct by drawing cultural materials from children's literature (Bell & Clark, 1998) and elementary school reading series (Casteel, 1995). Other methods by which researchers have done so included manipulating cloze measures by inserting culturally familiarities and unfamiliar words and phrases (Chihara et al.,1989), using the identified practices of a culture as a facilitative tool in increasing performance (Allen & Boykin, 1992; Lee, 1995), and describing distinct cultural practices between groups (Steffensen et al., 1979).

Based on the varying operationalizing of the construct of interest, differing results can be found across researchers. The majority of researchers have in common the population that they chose to study, that is , high school and college age students. Very few researchers focused their work on elementary school students, especially students in grades 3 through 5. Bell and Clark were the only researchers reviewed in this literature who chose to study students performance in upper elementary grades (4 through 6). Highlighting the population studied may shed some light on the differences between the results obtained in this study and past research. In terms of similarity, Bell and Clark's research is closely aligned with this study in terms of the selection of reading materials. However as already indicated, differing results were obtained.

Hence, the current study was one of the first to empirically explore the assumptions of the cultural difference model of school achievement as it pertains to students at the lower elementary level. The study also focused on a population that has

traditionally underperformed on all national standards of academic performance. The results obtained point to the variability within the African-American urban community. A key difference between the population of this study and that in Bell and Clark's study is that the latter's students originated from a research orientated school. Hence, one could argue that the students at the Florida school do not truly represent the black urban community. What the research suggests is that, depending on student age and demographic region, some black students will do well with culturally matched text and others will not. For example, Webster (2001) found that African-American students interacted differently with similar text. He found that whereas one African-American student found a text entertaining and very familiar, another student found the same passage to be confusing. This phenomenon of individualized perspectives and behaviors can be easily seen in some African-American's reaction to books written by Toni Morrison. Some comprehend her writing whilst others find her work to be confusing. Once again, similar students from similar backgrounds interacted differently with the same text. The cultural difference model would suggest that differences across African-American readers do not exist. That is, the model would suggest that all African-American students would react similarly to culturally matched passage regardless of class, educational status, parent training, etc. However, the results obtained in the present study suggest this is not the case.

Further variability in student reading vis a vis type of materials has been documented in the work of Casteel (1995) and Bell and Clark (1998). Casteel found that seventh grade students, attending school in an urban district, recalled events to a significantly higher level on comprehension passages containing a Caucasian protagonist.

There were no differences in performance between the high and low ability readers, whereas Bell and Clark found the opposite. Bell and Clark found that students in grades 4, 5, and 6 recalled more events when cultural themes and characters were matched. As in Casteel's study, racial imagery did not facilitate comprehension. However when racial imagery and cultural themes were combined in Bell and Clark's study, comprehension scores were higher, indicating that both facilitated comprehension. Grade level effects were obtained with students in the higher grades performing the best.

The results obtained in Bell and Clark's study, although similar to the present research in terms of grade performance and reading achievement are very different in the facilitative nature of culturally matched text. Results obtained herein on the curriculum based measures suggest that there were no differences between oral reading fluency scores obtained from reading within books written for African-American children and books written for Euro-American children.

How might we understand a failure to support a cultural difference explanation of reading achievement? One approach is to examine cultural assimilation and acculturation as seen by Branford and Harris (2003). These researchers found that African-American fourth, fifth, and sixth graders from an urban community were well aware of mainstream culture as they were of African-American culture. Their results suggest that African-American students are not developing in a vacuum. Though they may live in communities that are predominately black, African-American students are exposed to a wide range of mainstream culture, history, and news. This awareness would then influence their performance in school which is considered a dominant domain. Reese and Gallimore (2000) also suggest that the discontinuity between home and school that is

normally evident is lessened as parents assimilate and acculturate to the school culture. Parents and communities are forever evolving. African-American communities and individuals are now becoming more intertwined with the mainstream culture. Students are incessantly exposed to new information in the media and on the internet. Communities are no longer cut-off from mainstream views or perspectives. Hence, it is interesting to speculate that the differences hypothesized by the cultural difference model may not exist. What is important to note is the cultural explanation of school achievement in this study accounts for a small portion of the variance. As a result, it seems variables other than those studied here may better explain African-American student performance.

Implications of the Study

Although the results should be interpreted with caution, the implications of this line of research are paramount. At a macro-level, the results obtained fail to support a cultural frame model of school achievement, in that no differences were found between the reading materials. The reading materials chosen for this study were taken from books that were written by and for the African-American students. The assumption of the cultural frame model is that students will read books written for the African-American community more closely and thus comprehend what is read. However, current findings suggest that if students are poor readers and comprehenders, changing the content of passages to be more culturally aligned with students will not increase reading achievement. Thus, poor readers of Eurocentric text are also poor readers of Afrocentric text. The opposite is also true. Students who tended to read at the instructional level in Afrocentric materials tended also to do the same with Eurocentric materials. Thus it

appears that reading skill is more predictive of reading fluency than is content of materials.

In this vein, then, Stanovich (1986) highlights the importance of the cumulative advantages of reading. He argues that students, who are good readers, tend to choose environments that enhance and promote their reading skills. These students are often supported by teachers and parents, and have had success in the educational system. On the other hand, he argues that poor readers tend to have more failures than successes which lead them to choose environments (i.e., peers) that may not support reading. He argues that these students are often educated in environments that support their view about themselves. In light of Stanovich research, Roberts, Burchinal and Durham (1999) found that African-American preschoolers from more stimulating and responsive homes tend to have larger vocabularies, to use more irregular nouns and verbs, and use longer utterances than preschoolers from less responsive households. Hence, one could argue that African-Americans students will learn how to read fluently based on past developmental experiences.

One of the major questions of interest is how to help African-American students who are underperforming in urban schools. This research supports the notion that reading skill does matter. The ability to decode effectively despite culturally matched materials is important to the reading process. In her acclaimed work Delpit (1995) challenges educators to "provide these children the content that other families from a different cultural orientation provide at home (p.30)." She encourages school districts to teach the necessary reading skills to the majority of urban students who may not be receiving such instruction at home. Hence, the building blocks of knowing how to read

cannot be replaced by a literature based environment. It is a mistake to assume that the availability of books will trigger a desire to read, build vocabulary, and enhance reading comprehension.

To suggest that students who are underperforming in school will do well when provided with cultural materials is unfounded at this point. One can see where this argument holds emotional and intuitive value. It seems logical to attribute success to cultural matched materials. However, the literature tells us that the African-American culture is far from being homogenous. Individuality is evident in students growing up in urban centers.

An intuitive implication of this line of research is to suggest that culturally matched materials motivate African-American students in grades 3 through 5 to do well with reading activities. The reading literature suggests that students will be motivated to read if presented with materials of interest, which in turn would increase participation in reading activities (Pressley, 1998). However, in the present research culturally matched materials did not produce the hypothesized results.

An interesting caveat is in assessing reading disabilities in diverse students. Although prior research has suggested that changing certain phrases to more familiar cultural phrases in comprehension cloze measures did facilitate a difference in comprehension between culturally diverse learners, the current results show that changing the format of curriculum based measures to be more culturally aligned with students did not significantly alter comprehension or oral reading fluency. Thus it can be suggested, the cultural content of curriculum based measures would not alter the

identification of poor or good readers. Again, this is important, because it has been suggested in the past that students will perform differently on materials of interests.

Limitations and Future Research

Low statistical power was the major limitation of this research study. Power refers to the probability of correctly deciding that there is a true relationship between the independent and dependent variable. Insufficient power is held to highly correlate with the number of students in a study and the alpha level chosen to determine significance (Howell, 1997). Prior to data collection, a sample size of 150 students with a medium effect size suggested that a significant difference would be found if one truly existing, thus reducing the probability of a Type I error. However, although more than 150 subjects participated in the sample, unequal sample sizes were distributed amongst grades. Hence, instead of 50 subjects per grade, third and fourth grades had more participating students than fifth grade.

Hence, in answering the research questions, the power and effect size obtained were weak. For example, in determining whether a true difference existed between students' performance on Afrocentric and Eurocentric passages, there was an 87% chance that a significant result would not be found due to sample and effect-size. Although the power obtained was larger when viewing student's responses on the Sentence Verification assessment, sufficient power was still not generated to find a significant difference if one truly existed.

Another limitation to the study has to do with the number of poor readers who participated. In past research, researchers were able to find significant differences between content of materials because the students in their sample were good readers and

comprehenders. This difference in student ability greatly influenced performance on the Sentence Verification task. Pritchard (1990) argues that proficient readers use more background knowledge when interacting with culturally relevant text. According to Royer (2001), students who are poor readers tend to do poorly with this comprehension task. The majority of students in the third through fifth grade performed below average on the Sentence Verification assessment.

Research is needed to contribute a better understanding of how to enhance poor reader's abilities. This is true with all poor readers. It is perhaps even more pressing an issue with respect to poor readers who are African-Americans. With regards to future research, it is suggested that this study be replicated by recruiting more students, to the extent of at least 50 students per grade to ensure that a Type II error does not occur. As suggested by this study, the variables chosen explained only a small portion of the variance. Hence, the reading underachievement of African-Americans can be explored by examining other types of variables. For example, in discussing motivation of learners, Pressley suggested that a reading assessment survey which measures students' access to reading activities would provide much needed information regarding students' reading motivation. It is also important to access the home reading environment as it relates to cultural reading materials. This is important because one would assume that if the home environment is high in culturally matched materials then students would perform differently on the reading materials. The opposite would also be true. Pressley also suggested that student's grade point average correlated highly with reading. This is not surprising since Stanovich argues that students who are highly motivated to read are normally students who have experienced some success in the educational environment. In

summary, the variables of interest for future research in exploring the reading achievement of African-American students should include student's grade, the home-reading environment, and a reading self-esteem assessment. In addition, more intervention oriented research is warranted to examine methods of enhancing the achievement trajectories of African-American students.

Summary

The purpose of this study was to explore the relationship between culturally matched and unmatched materials on the reading comprehension of African-American students in grades 3 through 5. The study also sought to explore potential relationships amongst variables such background knowledge, academic self-concept, and comprehension. The results obtained suggest that after adjusting for background knowledge, oral reading fluency and reading comprehension scores did not vary as a function of reading culturally matched and unmatched materials. In other words, reading passage content did not facilitate fluency and reading comprehension for African-American students enrolled in grades 3 through 5. In addition, academic self-concept scores did not vary as a function of reading culturally matched and unmatched materials. Therefore, the results obtained fail to support the cultural model's hypothesis of reading achievement in the African-American community. Hence, current research suggests that poor readers of African-American text will also be poor readers of European-American text. Thus, changing the format of the passages to be more culturally aligned will not increase reading achievement. In conclusion, more intervention based research is warranted to examine methods of enhancing the achievement levels for African-American students.

APPENDIX A

PARENT CONSENT FORM: READING CULTURAL MATERIALS PROJECT

My name is Stacy Williams and I am a doctoral candidate from the School Psychology Program at the University of Massachusetts- Amherst. I currently am conducting a research project that aims at understanding the influence of cultural materials on student achievement in the classroom. I would like permission to include your child in the project. Your child was selected for the project because he/she is a student in grade _____.

The purpose of the study is to explore the relationship between reading comprehension and different types of reading materials. An examination of this relationship would add invaluable information to the research literature and the public school community. I hope to learn the degree to which cultural tools influence the process of learning in the classroom in hopes of eventually contributing to interventions that may work for students experiencing failure in school. However, this study is not intended to develop or provide interventions for students participating in the study.

Your child has been identified by the classroom teacher as a child of African-American ancestry. If you give permission for your child to participate, your child will be involved in several research activities: (a). he/she will be asked to read 6 short passages taken from award winning children's literature for approximately 15 minutes, (b). he/she will be asked to respond to a self-efficacy measure regarding academic motivation for approximately 5 minutes, (c) he/she will be given a brief vocabulary test, and (d) he/she will be given a reading comprehension test which will take approximately 20 minutes. The comprehension measure will be group administered. Administration

time of the vocabulary test will depend on the given child. Administration of measures will take place over several days so as to minimize disruptions to your child's school day and activities. Upon completion of participation, students will be given a thank-you gift for their time and effort. For your child, the potential benefits of project participation is the introduction to quality reading materials from African-American oriented children's literature and the opportunity to spend more time on reading activities.

Participation in the study presents minimal risk for your child, as the work being conducted is similar to what takes place in the classroom on any given day. However, your child will be asked to commit approximately an hour of class time across several days. For example, an assessment activity may take 20 to 30 minutes on a given day. I will attempt to minimize the amount of time students are missing from class by working out a schedule with the child's teacher and giving a group administration whenever necessary. A second potential risk of participation in the study is that information collected about your child would not remain confidential. I take precautions to prevent the loss of confidentiality by storing information gathered using a code number rather than student names, and by keeping all information in locked files. I do plan to share the information obtained, at the conclusion of the study with you and the school community.

Your consent to allow your child to participate in the study is voluntary. Your decision to allow your child to participate or not to participate will not affect your relationship with your child's school. If you give permission for your child to participate, you are free to withdraw your consent at any time without any penalty to you or your child.

If you have any questions, please contact Stacy Williams, at _____or my graduate advisor (Gary Stoner, Ph.D.) at the University of Massachusetts-Amherst School Psychology Program, at _____. You will be offered a copy of this form to keep for your records.

Your signature means that you have read and understood the information provided above, that you willingly give permission for your child to participate, that you may withdraw your consent at any time and discontinue your child's participation without penalty, that you will receive a copy of this form, and that you are not waiving any legal claims, rights, or remedies.

Please return a signed copy of this form to your child's teacher.

Thank you.

_____
Your child's name

_____ _____
Signature of parent/guardian Date

Thank you for your participation.

_____
Stacy A.S. Williams
Ph.D. Candidate in School Psychology

APPENDIX B

THIRD GRADE CURRICULUM BASED MEASUREMENT READING PROBES OF CULTURALLY MATCHED AND UNMATCHED PASSAGES.

THIRD GRADE SCORING SHEET

Name:_____ Grade: _____

Teacher: _____ School: _____

	Probe 1	**Probe 2**	**Probe 3**	**Median**
AA				
EA				

PPVT Score: _____

Comprehension Score: _____

Self- Esteem Score: _____

Directions

The first three passages you are about to read were taken from books that primarily focus on African-American characters, themes, and stories. When I say "Start", begin reading aloud at the top of the page (demonstrate by pointing). Try to read each word, even those you do not know. If you come to a word you don't know, I'll tell it to you. Be sure to do your best reading. Are there any questions? Start.

At night I glanced at the calendar. Then I blinked, thinkin' maybe 12
I'd read it wrong. But there it was, bold and black as could be, 26
T- H -U -R -S- D-A -Y. I ran to the window just to see the first-star and wish 45
on it, wish with all my might that report card day wasn't really on a 60
you-know-what. I finally got to sleep that Wednesday night after all, 71
knowin' Mama always keeps her promises. 77

All next day, I was jumpin' out of my skin, wonderin' about when Mama 91
would open her mail. I raced home from school and there they all were, our 106
report cards. I put mine at the bottom of the mail stack. 118

Every minute crept by, slow as a wounded snake. Finally, Mama 129
noticed the mail. I held my breath. 136

She sighed at the gas bill. Made a tsk with her tongue about the junk mail. 152
Then she said, " Hmm, report cards." 159

She opened Davis's first. " Improvement in English, good," she muttered. 170
"But what's this? Two science papers not handed in?" 179

"I'll get to 'em, Mama," Davis said. 186

" You'll get to them now," she said. "But first call Shawna." 198

' Yes ma'am," Davis grumbled, grabbing his backpack. 206

"Wow," Mama said to my sister. "Eighty-nine point four percent. 216

Almost honor roll. You did good—really good." 224

Whew. For a second, I thought Shawna had beat me. 234

Suddenly Mama was sayin', "Andre, Andre, Andre!" 241

She scooped me into a hug-dance and whirled me around the living room singin', 255

" You did it! You did it! A whoppin' ninety point three percent!" 268

Directions

When I say "Start", begin reading aloud at the top of the page (demonstrate by pointing). Try to read each word, even those you do not know. If you come to a word you don't know, I'll tell it to you. Be sure to do your best reading. Are there any questions? Start.

" Those girls down south," Hattie continued, "seemed to be stacked by the 13
time they were ten." "They had two years on you, Margaret. But when 26
we moved up here to New York, I seemed to be caught up with everybody. 41
Then it was safe to go outside again." 49

Hattie laughed. "Eat your soup." 53

Margaret smiled, taking a big spoonful. Leave it to Ms. Dell and 66
Hattie to make her feel okay about herself. 74

"What time's your mama home, tonight?" Ms. Dell asked. 82

"She said around eight. There's a meeting today. Some people might 94
want her to do some illustrations for a magazine. If they do, she said they're 109
going to pay her good money." 115

A few months after her father died, Margaret's mother started 124
working for an architectural firm while she took drawing classes at 136
City College at night. Now she had a new job, designing everything from 149
company manuals to Christmas, party matchbooks. 155

Ms. Dell shook her head proudly and turned to get what must 167
have been the hundredth look at the picture Mrs. Tory had given them 180
New Year's Eve. "Every one of you Torys has a gift," she said slowly. 194
"Even your father, God rest his soul." 201

"God rest it," Margaret and Hattie echoed. 209

In the year and a half since he had died, Margaret thought of her 223

father less and less. Before, he had been like his real self, hovering over her, 238

making her remember him every single day; now he was just a small shadow 252

that followed her. 255

Directions

When I say "Start", begin reading aloud at the top of the page (demonstrate by pointing). Try to read each word, even those you do not know. If you come to a word you don't know, I'll tell it to you. Be sure to do your best reading. Are there any questions? Start.

Shawna hugged me right along with Mama. Me and Davis, we did 12
our five-part handshake. 16

After a while, everybody calmed down, and Mama continued 25
makin' spaghetti supper. 28

Shawna started shriekin', "My blush brush fell in the toilet. 38

Now how am I gonna perk up my cheeks?" 47

"Ain't that why God made fingers, for pinchin' color into them?" 58
Mama asked, saltin' the sauce. 63

"And what am I s'posed to do about my bandana? 73
Dressed rehearsal's tomorrow," Shawna went on. She was a West African 84
woman in a play and needed a headwrap. 92

"Use a towel for now," Mama said, " and be thankful the real 104
play isn't till Saturday." 108

Shawna stomped and slammed the door, but later I saw the zigzag 120
towel stickin' out of her backpack. 126

Davis was out of loose-leaf paper. Shawna ripped a sheet from her Tablet. 140
"Here, do your math on this." 146

"It's s'posed to be loose-leaf," Davis said. 154

I looked through our junk drawer and fished out the hole puncher. 166

Mama smiled and grabbed the paper. 172

Cha-ching, cha-ching, cha-ching, the puncher went. 181

"There you go. Happy now?" she said. 188

Davis shook his head, lookin' at the punched-out paper. He couldn't hide 201

his smile and soon we were all laughin' and his math did get done. 215

But little by little my frown took over. My problem today was bigger 228

than a blush brush or a turban or a paper without holes. And the night was 244

marchin' on. I watched Mama doin' kitchen things. She saw me eyein' her 257

and read my mind. She wrung out her sponge and set it aside. 270

Directions

The three passages you are about to read were taken from books that primarily focus on European-American characters, themes, and stories When I say "Start", begin reading aloud at the top of the page (demonstrate by pointing). Try to read each word, even those you do not know. If you come to a word you don't know, I'll tell it to you. Be sure to do your best reading. Are there any questions? Start.

Addie was catching potholes left and right. At least something 10
reminded me of Brooklyn, a dilapidated building with a faded sign for 22
the Mulhoney Community Center. Around the corner, a relic from the 33
Golden Age of Cuteness-the Tick Tock Clock Shop. Noisy dairy trucks rumbled 45
by us. 47

No subways. No sushi. I sank in the front seat. 57

"Give it time," Addie directed. 62

"I'm giving it time." 66

"And I'm Queen Victoria." 70

" YOU'VE ALMOST REACHED THE BEST DINER IN AMERICA." 79
Addie followed the arrow, muttering. 84

That's when I saw the two-story white frame building with the bright 96
red double stairways descending from the glass door-one from the left, 107
one from the right. An American flag waving from a flagpole. A walk of 121
flowering trees circled toward the back. Every window had a flower box 133
packed with blossoms. Above the front porch hung a 142
big sign: WELCOME STAIRWAYS. 146

Addie pointed to a balcony with big windows. "Our apartment's up there, I think."

It was 5:00 P.M. Addie parked the Buick with the U-Haul in the back of the Welcome Stairways. The lot was almost full- a good sign.

"It'll be full up and then some when I start cooking," Addie announced.

In the car waiting. It's what we always do before we start at a new place-sneak up on it-read the faces of the people coming out.

It was the first time Addie hadn't visited a place she was going to work at. All she'd done was talk to the owner on the phone. Addie studied the two men coming through the back door, toothpicks in their mouths, not talking.

Directions

When I say "Start", begin reading aloud at the top of the page (demonstrate by pointing). Try to read each word, even those you do not know. If you come to a word you don't know, I'll tell it to you. Be sure to do your best reading. Are there any questions? *Start.*

"Sweet Jesus," Addie flopped down on the stairs leading up to 11
our apartment over the Welcome Stairways. We were trying to carry our 23
small couch up the staircase. Being young and vital, I had more of the couch weight. 39

"Tell me the truth, Hope, what did you think of that meal we 52
had tonight? I thought it was average." 59

"Let's just get the couch upstairs and-" 66

Addie picked up her end and huffed up the stairs. "I wonder if they can 81
handle me introducing the butterscotch cream pie and the deep-dish 91
apple in the same week," 96

"Could we do this a little quicker?" *103*

"You can't overwhelm customers with too much at-" 111

"I'm going to drop the couch, Addie. It will fall on me and I'll die." *126*

"Why didn't you say something before?" She eased the door open 137
and pushed the couch through it to a very large room with white curtains. 151

I put down my end and fell to the floor to make a point. 165

Addie doesn't always pick up on subtle, except in seasonings. 175

We were to set to meet G.T. Stoop tomorrow morning. 185

Addie was sitting on the couch making notes on how to introduce 197
her band of revolutionary comfort food to the Welcome Stairways. 207

I'd written out my favorite definition of my name on a 218

three-by-five card; I needed extra help in the hoping department. 228

From the Webster's collegiate dictionary: Hope- to cherish 236

a desire with expectation of fulfillment. 242

I hope, I hope, I hope this will all turn out for good. 255

Directions

When I say "Start", begin reading aloud at the top of the page (demonstrate by pointing). Try to read each word, even those you do not know. If you come to a word you don't know, I'll tell it to you. Be sure to do your best reading. Are there any questions? *Start.*

The rest of the morning went down like cold rolls with a hot meal. 14

We knocked on doors and got seven slammed in our face. 25

A mother holding a shrieking infant asked if we baby-sat. 35

An old man holding a rifle told us to get off his property. 48

We obeyed instantly. 51

Three women said G.T. was a fine man, but their husbands 62

needed their jobs at the dairy. 68

It's amazing how many ways people can tell you to buzz off. 80

We'd had enough for one day. 86

The humidity made everything seem heavy. The hot sun beat down. 97

Braverman and I were walking through Grimes Square. I was hungry. 108

In New York you could always get a hot dog from a street vendor. 122

No street meat here. A store called Wisconsin Giftique had a window display 135

with small colored, cheeses in the shape of farm animals. I felt like Dorothy 149

plopped down in Munch kin Land. 155

A noisy dairy truck rumbled by too fast. Painted on the side: 167

MILK DOESN'T GET ANY FRESHER THAN THIS.JUST ASK THE COW. 177

I turned to Braverman. "What's with the big, bad dairy?" 187

Braverman threw a stick. "That's our mystery around here. 196

Some people say they funded Millstone's campaign and he lets them do whatever they want. I've heard they basically own the people who work for them. Brice's dad was a factory manager there for a while. His boss told him he had to contribute to Millstone's campaign."

"What did he do?"

"He quit."

Braverman stopped at a long driveway that led to a huge new house with white pillars. "That's the mayor's new place."

APPENDIX C

SENTENCE VERIFICATION TECHNIQUE TEST DEVELOPMENT

The construction of the SVT tests involved developing one of 4 types of test sentences from each sentence appearing in a text passage. Text passages were developed and selected using the procedure outlined in the development of African-American and European-American reading passages. The 4 types of test sentences included: original, paraphrase, meaning-change and distracter. An original sentence is the exact copy of a sentence as it appears in the text. A paraphrase sentence is constructed by changing as many words as possible in an original sentence without altering the meaning of the sentence. A meaning-change sentence is constructed by changing one or two words in the sentence so that the meaning of the sentence is altered. A distracter is a sentence that has a syntactic structure that is similar to a sentence in the passage and is consistent with the overall themes of the text passage, but is unrelated in meaning to any sentence that appeared in the passage.

The SVT tests development followed the guidelines provided by Royer (2001). The SVT tests were developed by a team consisting of a team leader and four team members. The passages were selected prior to meeting as a group. Passages selected were self-contained and coherent. The passages also contained no more than 12 sentences. The next stage in the test development process involved having the team leader introduce the four SVT item types and the rules for developing each type. Explanation and modeling the development of the test items took approximately an hour to explain. The next stage in the process was to develop test sentences. The group practiced on one of the passages that was selected. Each team member copied the individual sentences from

the passages and created paraphrase and meaning-change versions of each sentences. Each team member then read his or her paraphrased version of the first passage sentence, which was subsequently copied on the board underneath the original sentence. After all of the team's paraphrased sentences were copied, the team member critiqued each of the sentences and then selected one sentence or a combination that was thought to have best paraphrased the original sentence. This process was repeated for the meaning-change sentences and for each sentence in the original passage. Test sentence construction was completed by constructing distracter sentences to accompany each original sentence.

After the construction of the test sentences, the team created a test consisting of randomly chosen original, paraphrase, and meaning-change sentence to represent each original sentence in the passage. Therefore, the test consisted of 4 original sentences, 4 paraphrase sentences, 4 meaning-change sentences, and 4 distracter sentences. The sentences were then randomly arranged to create SVT test sentences for the first passage. The group worked together on another passage. After the end of the second passage, group members were given a booklet containing 18 passages, for which they had to create a paraphrase and a meaning-change sentence. They were allotted two weeks to work independently on constructing test sentences.

At the end of the two weeks, the group met once again to create the test items for the remaining passages. Test sentences were selected based on the consensus of the group. For example, each original sentence had a paraphrase and a meaning-change sentence. For each sentence, each group member recited their sentences; the best of the four was selected and added to the pool to be randomly assigned in the construction of the SVT tests.

APPENDIX D

AFRICAN-AMERICAN FIFTH GRADE TEST OF LANGUAGE COMPREHENSION

FIFTH GRADE READER

Test of Language Comprehension

Directions

This is a test to see how well you understand stories that you read. You take the test by reading a story. Then you mark test sentences YES if they mean the same thing as a sentence in the story. You mark them NO if they have a different meaning than a sentence in the story. Let's try an example from a story about a family that owns a restaurant. Read the story below and then we will answer the test questions.

The Cortina's Restaurant

Mr. and Mrs. Cortina had been asked to prepare the food for a big party. They own Cortina's kitchen, and everyone say Cortina's kitchen makes the best Mexican food in town. Mr. and Mrs. Cortina got up early to start preparing the food while their children, Ruby and Ricardo, ate breakfast. Ruby and Ricardo wished they could go to the party too.

When you have finished reading the story, wait, and you will be told what to do next.

Test Questions

Mark each of the sentences below by marking the YES or NO answer on your answer sheet. Sentences that mean the same thing as a sentence in the story are to be marked YES. Sentences that have a different meaning than a sentence in the story are to be marked NO. Mark your answers on your answer sheet.

1. They own Cortina's Kitchen, and everyone says Cortina's Kitchen makes the best Mexican food in town.
2. Mr. and Mrs. Cortina had been asked to prepare the decorations for a big party.
3. Ruby and Ricardo hoped they would also be able to attend the party.
4. The big party was going to be Saturday night.

Read the story below slowly and carefully.

First Meeting with Dad

"Maizon ..." Grandma began slowly. "This is your-"

"I know," Maizon said softly. He had left her at Grandma's when she was a baby, but she would know him-in a hundred thousand people she would know her father even though she had only seen pictures. He smiled at Maizon now, but Maizon couldn't fix her mouth to smile back. They were suspended for a moment; him smiling uncertainly, Grandma looking on with no expression, and Maizon with her mouth partially open, unable to take her eyes off him.

He took a deep breath. "You've grown up," he said, letting go of a proud laugh. "Look at you." He learned toward Maizon and she stepped back even farther. Just as quickly as his laugh had come, it was gone. He leaned back again, a hurt look moving up into his eyes. "I want to tell you things, Maizon…"

WHEN YOU HAVE FINISHED, TURN THE PAGE AND ANSWER THE TEST QUESTIONS.

DO NOT TURN BACK TO THE STORY

Carefully read each of the test sentences. Mark "YES" if the test sentence means the same thing as the sentence in the story. Mark "NO" if the test sentence has a different meaning than a sentence in the story. Start your answers with number 5 on your answer sheet.

---

5. She wanted to touch him, to see if she could feel any realness there.
6. He leaned toward Maizon and she stepped back even farther.
7. They were suspended from the ceiling; him smiling uncertainly, Grandma looking on with no expression, and Maizon with her mouth partially open, unable to take her eyes off him.
8. His mood changed quickly.
9. His voice broke on her name.
10. He leaned back again, a hurt look moving into his eyes.
11. He had left her at Grandma;s when she was a baby, but she would know him in a hundred thousand people she would know her father even though she had only seen pictures.
12. "Maizon, This is your…" said Grandma slowly.
13. "I want to sell you things Maizon."
14. "We have a lot to talk about."
15. Maizon shook her head.
16. He laughed proudly and told her she looked older.

PLEASE TURN THE PAGE FOR THE FINAL QUESTIONS.

17. “I don’t think so,” said Maizon hesitantly.

18. Although he gave Maizon a smile, she couldn’t seem to smile back.

19. He took a deep breath.

20. “Look at me.”

WHEN YOU HAVE FINISHED, TURN THE PAGE AND READ THE NEXT STORY.

Read the story below slowly and carefully.

Working with Dad

Cooper was working a phone jack, his hands busy twisting the colored wires. When Maizon called his name, he stopped and looked up at her, all eyes and ears as though he had been put on this earth to listen to her. Maizon felt her stomach flutter. *My* father, she thought. *That man's my father.*

Are you going to come to my play?"

Cooper nodded. If you want me to." He stared at her so long, Maizon felt uncomfortable. I just want to look at you sometimes, Maizon sometimes, I can't believe you're real, my daughter, my Maizon."

Maizon swallowed.

WHEN YOU HAVE FINISHED, TURN THE PAGE AND ANSWER THE TEST QUESTIONS.

DO NOT TURN BACK TO THE STORY

Carefully read each of the test sentences. Mark "YES" if the test sentence means the same thing as the sentence in the story. Mark "NO" if the test sentence has a different meaning than a sentence in the story. Start your answers with number 21 on your answer sheet.

---

21. "Are you going to come to my play?"

22. Maizon felt uncomfortable as he stared at her for so long.

23. "Sometimes, I can't believe you're real, my daughter, my Maizon."

24. It had been a week since she had talked to Margaret about her father.

25. Maybe all Cooper deserved, all anybody deserved, was a chance.

26. Cooper was working a phone jack, his hands busy twisting the colored wires.

27. Maizon swallowed.

28. The man is my brother.

29. When she called out to him he stared at her intently as though it was what he lived for.

30. "I just want to look at you sometimes, Maizon."

31. Cooper nodded his head yes.

32. My dad, she thought.

33. Maizon felt unusually calm.

34. "I don't think I want to."

35. Maybe Margaret was right.

PLEASE TURN THE PAGE FOR THE FINAL QUESTIONS.

36. She has been thinking.

WHEN YOU HAVE FINISHED, TURN THE PAGE AND READ THE NEXT STORY.

Read the story below slowly and carefully.

Playing basketball with a monkey

"You can't shoot better than a monkey, man?" one of the old guys said.

I started to say something about how I didn't have to get into a contest with a chimp, but I saw everybody looking at me and I knew I had to go again. Okay, I was already the talk of the neighborhood with the little kids. I had to shoot down Hollywood to spoil the legend.

I took a deep breath, found my spot on the backboard and put the ball against it.

The first eight shots went right in and then I made a mistake. I looked around and saw the little kids watching me. They were trying to pull the bailout of the hoop with their minds. I'm serious. They wanted that monkey to win. I told myself to stay calm, to keep my arms relaxed. I did stay calm and my arms were so relaxed the ball didn't even reach the backboard.

WHEN YOU HAVE FINISHED, TURN THE PAGE AND ANSWER THE TEST QUESTIONS.

DO NOT TURN BACK TO THE STORY

Carefully read each of the test sentences. Mark "YES" if the test sentence means the same thing as the sentence in the story. Mark "NO" if the test sentence has a different meaning than a sentence in the story. Start your answers with number 37 on your answer sheet.

---

37. I looked around and saw the little kids watching me.

38. Me and Hollywood were all even with one shot to go.

39. I had to shoot down Hollywood to increase the legend.

40. They wanted the monkey to beat me.

41. "You can't shoot the basketball better than a monkey?" one of the old men said.

42. Of course the real deal is that I don't have to shoot against Hollywood.

43. I did stay calm and my arms were so relaxed the ball didn't even reach the backboard.

44. I started to say something about how I didn't have to get into a contest with a chimp, but I saw everybody looking at me and I knew I had to go again.

45. I took a deep breath concentrated on the backboard, and put the ball against it.

46. They were hoping that the ball wouldn't go in the basket/

47. I'm nauseous.

48. I had missed eight times and then the ball went in.

49. I told myself to wake up and shoot the ball.

50. I can just sit down and ignore the whole scene.

PLEASE TURN THE PAGE FOR THE FINAL QUESTIONS.

51. I couldn't tell which was louder, Pooky's screaming about how great Hollywood was or everybody else laughing.

52. Okay, I was already the talk of the neighborhood with the little kids.

THE END

APPENDIX E

EUROPEAN-AMERICAN FIFTH GRADE TEST OF LANGUAGE COMPREHENSION

FIFTH GRADE READER

Test of Language Comprehension

Directions

This is a test to see how well you understand stories that you read. You take the test by reading a story. Then you mark test sentences YES if they mean the same thing as a sentence in the story. You mark them NO if they have a different meaning than a sentence in the story. Let's try an example from a story about a family that owns a restaurant. Read the story below and then we will answer the test questions.

The Cortina's Restaurant

Mr. and Mrs. Cortina had been asked to prepare the food for a big party. They own Cortina's kitchen, and everyone say Cortina's kitchen makes the best Mexican food in town. Mr. and Mrs. Cortina got up early to start preparing the food while their children, Ruby and Ricardo, ate breakfast. Ruby and Ricardo wished they could go to the party too.

When you have finished reading the story, wait, and you will be told what to do next.

Test Questions

Mark each of the sentences below by marking the YES or NO answer on your answer sheet. Sentences that mean the same thing as a sentence in the story are to be marked YES. Sentences that have a different meaning than a sentence in the story are to be marked NO. Mark your answers on your answer sheet.

1. They own Cortina's Kitchen, and everyone says Cortina's Kitchen makes the best Mexican food in town.
2. Mr. and Mrs. Cortina had been asked to prepare the decorations for a big party.
3. Ruby and Ricardo hoped they would also be able to attend the party.
4. The big party was going to be Saturday night.

Read the story below slowly and carefully.

Meeting with Mom

I was sitting with my mother in the corner booth. Addie had sat with us for a while, but she had entrees to get ready for dinner. They sure had a funny relationship. I could tell Deena looked up to Addie--she was always searching Addie's face for a response to whatever she said. I could also tell that Addie would never, ever believe that.

It was almost time for Mom to leave. She had to drive back down to St. Louis to meet her new boyfriend, Eduardo. Mom liked men who had names ending in vowels.

"What happened to Dino?" I asked. He was the last one she had mentioned.

She flicked her fingernails on the table. "Old news."

WHEN YOU HAVE FINISED, TURN THE PAGE AND ANSWER THE TEST QUESTIONS.

DO NOT TURN BACK TO THE STORY

Carefully read each of the test sentences. Mark "YES" if the test sentence means the same thing as the sentence in the story. Mark "NO" if the test sentence has a different meaning than a sentence in the story. Start your answers with number 5 on your answer sheet.

---

5. I'd write them in the Best of Mom book later.
6. Mom liked men who had names ending in vowels/
7. They sure had a funny dog.
8. "Bad new."
9. She was going to meet her new boyfriend, Eduardo, in St. Louis.
10. The second was during her fond farewell when she kept telling me how she hated having to go, it was wonderful to seem me, and we'd have to do this again real soon.
11. My mother and I were sitting together in the corner booth.
12. I could also tell that Addie would never ever believe that.
13. The best part was when she gave me waitressing tips.
14. She flicked her fingernails on the table.
15. I could tell Deena respected Addie, she was always looking for her approval.
16. She had mentioned him last.
17. I wrote them down on the back of my order book.
18. What happened to Steve-o?" I asked.

PLEASE TURN THE PAGE FOR THE FINAL QUESTIONS.

19. It was almost time for Mom to sing.

20. Addie had sat with us for a while, but she had entrees to get ready for dinner.

WHEN YOU HAVE FINISED, TURN THE PAGE AND READ THE NEXT STORY.

Read the story below slowly and carefully.

Visiting the elderly

Just kids I found along the crick bank," Grandma said, to our surprise. "They was fishing."

"I don't know as I want them in the house." Aunt Puss Chapman sent us a mean look. "Do they steal?"

"Nothin' you've got," Grandma said, under her breath.

"Talk up, girl," Aunt Puss said. "You mumble. I've spoken to you about that before." She pulled her shawl closer, though it was the hottest day of the year. I'm hungry. You hightailed it out of here after breakfast, and I ain't seen hide nor hoof mark of you since."

WHEN YOU HAVE FINISHED, TURN THE PAGE AND ANSWER THE TEST QUESTIONS.

DO NOT TURN BACK TO THE STORY

Carefully read each of the test sentences. Mark "YES" if the test sentence means the same thing as the sentence in the story. Mark "NO" if the test sentence has a different meaning than a sentence in the story. Start your answers with number 21 on your answer sheet.

---

21. I've spoken to you about that before.

22. "And more of the same for your supper."

23. Even though it was very hot, she pulled her shawl closer.

24. "You lingered around her all day, go away."

25. They'd been fishing.

26. "You're an excellent speaker."

27. I'm hungry."

28. "Just kids I found along the crick bank," Grandma said, to our surprise.

29. "She ain't seen me for a week," Grandma mumbled to us.

30. Then she called out to Aunt Puss: "Catfish and fried potatoes and onions, vinegar slaw, and a pickled peach apiece."

31. "Are they thieves?"

32. "Idont;t know as I want them for breakfast."

33. "Nothing that you cook," Grandma said aloud.

34. Aunt Puss Chapman sent us a mean look.

35. "But she forgets."

PLEASE TURN THE PAGE FOR THE FINAL QUESTIONS.

36. “Speak up girl,” Aunt Puss said.

WHEN YOU HAVE FINISED, TURN THE PAGE AND READ THE NEXT STORY.

Read the story below slowly and carefully.

The Mayor

Wow." I looked at the three-car attached garage, the baby evergreens lining the walk.

"He built it last year. He said his wife inherited a ton of money." Braverman put his hand over his heart. "How else could a small-town mayor afford a place like this?"

"What do you mean?"

Braverman's jaw locked. "Maybe Millstone's lying."

"You think the dairy gave him the money?"

"I think there's a reason the Real Fresh Dairy does whatever it wants to around here. Cranston Broom's the owner, and he knows how to play it.

WHEN YOU HAVE FINISHED, TURN THE PAGE AND ANSWER THE TEST QUESTIONS.

DO NOT TURN BACK TO THE STORY

Carefully read each of the test sentences. Mark "YES" if the test sentence means the same thing as the sentence in the story. Mark "NO" if the test sentence has a different meaning than a sentence in the story. Start your answers with number 37 on your answer sheet.

---

37. "How else could a small-town mayor afford a place like this?"
38. I thought of Gleason Beal hiring me at fifteen and giving me all that responsibility opening up on the weekends.
39. "He buried that last year."
40. "You think he got the money from the dairy?"
41. "I know what you mean."
42. Broom's dairy workers clean up the park by the railroad tracks, his trucks deliver free milk to the schools.
43. "Wow."
44. I thought of little kids drinking tainted milk.
45. He said that his wife had inherited a large sum of money.
46. He and Millstone are big buddies-they play golf, go deep-sea fishing.
47. There were baby evergreens lining the walk by the garage that I was looking at.
48. Millostone always tells the truth.
49. "I think that the Very Fresh Dairy can do whatever it wants because it is such a successful business."

PLEASE TURN THE PAGE FOR THE FINAL QUESTIONS

50. Baverman locked his jaw.

51. Baverman put his hand over his heart.

52. Cranston Broom's the owner, and he knows how to play it.

THE END

APPENDIX F

ANALYSIS OF COVARIANCE FOR THE SENTENCE VERIFICATION TECHNIQUE USING GRADE, FLUENCY AND PPVT AS COVARIATES

Source	df	F	ES	p	Power
PPVT	1	1.60	.011	.207	.242
Fluency	1	22.9	.13	.000	.99
Grade	1	5.92	.038	.016	.677
Reading Content	1	3.59	.023	.060	.470
Error	150	(29.81)			

Note. Value enclosed in parentheses represents mean square error.

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